December 2002

The Interchange Handbook



State of Florida
Department of Transportation
Statewide District Interchange
Review Committee
www11.myflorida.com/planning

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PREFACE

PURPOSE

Florida Department of Transportation (FDOT) Procedure No. 525-030-160, (**See Appendix A.**) Interchange Justification, defines the state and federal requirements and the processes to be used by all Applicants in the development of an Interchange Proposal (Interchange Justification Report or Interchange Modification Report). It should be noted, however, that

- full compliance with the procedure and process does not ensure approval of the proposal.
- the approval decision on each proposal will be based on:
 - ▶ interchange need
 - ► FDOT and Federal Highway Administration (FHWA) Policy, (See Appendix B.)
 - specific evaluation criteria including engineering, operational, safety, environmental and financial.

This Handbook provides guidance and basic practice to meeting the state and federal requirements defined in the procedure. The Handbook should be used by all Applicants and FDOT and the Turnpike Enterprise in the development and review of Interchange Proposals.

Interchange design and analysis is primarily a matter of sound application of criteria and standards and acceptable engineering judgment. While the criteria in this Handbook provides a basis for uniform design and analysis of Interchange Proposals, individual situations must rely on sound engineering judgment, practice and analysis.

Situations may exist where the criteria and technical standards in this Handbook may not apply. The inappropriate use of and adherence to these criteria and standards does not exempt the engineer from the professional responsibility of developing an appropriate design based on the operational or other pertinent analysis. The engineer is responsible for identifying those criteria and technical standards which may not apply and for obtaining the necessary exception to achieve a proper design.

GENERAL REQUIREMENTS

Since each Interchange Proposal is unique, a specific project study design must be defined and approved prior to the initiation of any technical analysis and documentation. The project study design will document the analyses and reports required to address FDOT and Federal Highway Administration (FHWA) criteria and any additional DIRC requirements. This study design will be finalized in a Methodology Letter of Understanding (MLOU). The Applicant, District Interchange Review Committee (DIRC), Systems Planning Office (SPO) and Federal Highway Administration (FHWA), (where they are the Approval Authority) shall reach agreement on the analysis and documentation requirements to be contained in this MLOU and shall be signatories to the document.

The Applicant is responsible for the collection of all data, performance of all required analysis and development of the required documentation in the proper format for the Preliminary Interchange Report.

Upon notification by the DIRC, the Applicant shall prepare the Final Interchange Report, incorporating responses to all FDOT comments.

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DISTRIBUTION

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Florida Department of Transportation
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and through the online store at: http://www11.myflorida.com/publicinformationoffice

A downloadable version of the Handbook is also available at:

http://www11.myflorida.com/planning/systems/sm/intjus/default.htm

Frequently Asked Questions (FAQs) and updates are also available at this website.

For updates, Handbook questions and example studies contact:

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Handbook Addendum and Updates

Handbook users are encouraged to submit questions and requests for modifications to Gary Sokolow at the above address. The Handbook, Policy Resource Documents and Technical Resource Documents, will be updated as needed through an addendum process. All addenda will be posted on the website by effective date.

The Handbook and Resource Documents will be updated to incorporate all current addenda and any other needed changes every three years or as needed. This effort will be coordinated through the Statewide District Interchange Review Committee. Handbook users are encouraged to check the website prior to use of the Handbook to ensure the latest process and technical requirements are being followed.

SECTION 1 OVERVIEW

The Interchange Handbook was developed by FDOT to provide guidance on the required state and federal process; technical standards and analysis techniques; and, reporting requirements to be used for developing and making an approval decision on Interchange Proposals for new or modified access with existing Florida Intrastate Highway System (FIHS) limited-access (freeway) facilities. Prior to using the Handbook, the Applicant is encouraged to go to the website http://www11.myflorida.com/planning/systems/sm/intjus/default.htm for the latest addendums and other information.

Figure 1-1 displays the facilities for which this Handbook applies. The primary offices that would normally be involved include:

District:

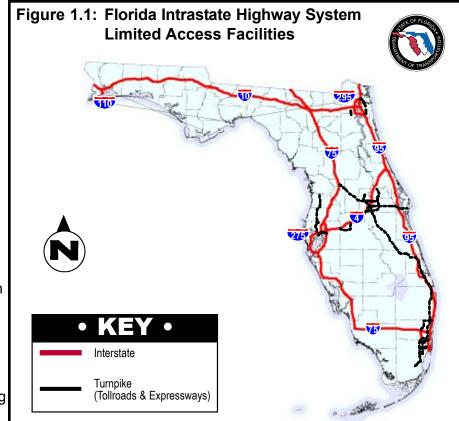
- Planning
- Environmental Management
- Design
- Right-of-Way
- Traffic Operations

Central Office:

- Systems Planning
- Environmental Management

Other non-FDOT offices and agencies that may be involved in the Interchange Proposal Process include:

- Turnpike Enterprise
- Metropolitan Planning Organization (MPO)
- · local governments
- · state agencies
- federal agencies
- expressway authorities



The Handbook consists of two sections organized to provide a "user-friendly" format by incorporating charts, figures and other illustrative material and a series of Policy and Technical Resource Documents.

The following is the organization of this Handbook and a brief description of the sections.

Section 1: Overview - an explanation of the

Interchange Proposal approval requirements and the process.

Section 2: Process Detail - descriptions and formats

of how information required at each process stage should be documented,

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reviewed and processed.

Policy and Technical Policy and Technical Detail - provides techniques to perform the analysis

techniques to perform the analysis required during the development of an

Interchange Proposal.

Interchange Proposal Considerations:

- Need for improvement
- Policy consideration
- Evaluation criteria

Each Interchange Proposal is reviewed and evaluated with consideration given to the need for the improvement, policy considerations and evaluation criteria.

The Applicant should be aware of the following in the development of an Interchange Proposal:

Full compliance does not ensure approval of the proposal.

Proposal process can be stopped at any point in time.

FHWA Approval for Interstate Interchange not guaranteed.

- This Handbook provides guidance to be used by the Applicant and FDOT in the development and review of Interchange Proposals.
 Full compliance with the requirements and process defined in FDOT Procedure No. 525-030-160 is required for the consideration of any Interchange Proposal. However, full compliance does not ensure approval of the proposal.
- FDOT review and approval of any interim analysis and documentation during the process does not enhance the Applicant's probability of approval of the proposal. The Interchange Proposal may be stopped at any point in the process by the Applicant or FDOT.
- Recommendation for an Interstate Highway System Interchange Proposal by FDOT does not guarantee approval of the proposal by the Federal Highway Administration (FHWA).

1.1 POLICIES AND GENERAL REQUIREMENTS

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1.1.1 Why We Care About Interchange Proposals

FDOT and FHWA have a substantial investment in the FIHS limited-access facilities, particularly the Interstate System. Any proposal to change the access to these facilities can potentially have an adverse impact on their ability to effectively and safely accommodate the travel demand in a corridor.

1.1.2 How FDOT and Federal Policy Address Interchange Proposals To ensure access decisions are properly administered, both FHWA and FDOT have adopted policies regarding interchange approvals.

Florida Statutes (338.001) states: The Florida Intrastate Highway System shall provide a statewide transportation network for the high speed, high volume traffic movements within the state. Access to abutting land is subordinate to this function and such access must be prohibited or highly regulated.

It is FDOT's policy to minimize the addition of new access points to existing FIHS limited-access facilities.

The FDOT policy (000-525-015) states: It is the Department of Transportation's policy to <u>minimize the addition of new access points to existing FIHS limited-access facilities</u> to maximize the operation and safety of intrastate and interstate transportation movements, and to advance important state land use planning goals and policies.

The FHWA policy (98-3460) states: It is in the National Interest to maintain the Interstate Highway System to provide the highest level of service in terms of safety and mobility. Adequate control of access is critical to providing such service.

It is FHWA policy to adequately control access to the Interstate System.

Other applicable policies are shown in **Policy Resource Documents 1** and **2**.

1.1.3 Federal requirements for Interchange Proposals

The following general requirements are summarized from the Federal Register, dated February 11,1998 (Doc. 98-3460). These federal requirements are used by FDOT for the development and review of all FIHS Interchange Proposals. (See Policy Resource Document 1.)

Additional information is available at: http://www.fhwa.dot.gov/programadmin/fraccess.html

- 1. Existing system is incapable of accommodating the traffic...
 The existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access nor be improved to satisfactorily accommodate the design-year traffic demands while at the same time providing the access intended by the proposal.
- 2. All reasonable alternatives to a new interchange have been considered including ramp metering, mass transit, and HOV facilities...

FHWA requirements must be net for all FIHS Interchange Proposals. An Interchange
Proposal must be
developed and
approved even if the
proposed
interchange is
contained in a Master
Plan or PD&E study
for the facility.

3. Proposal does not adversely impact operations or safety of the existing freeway...

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- 4. A full interchange with all traffic movements at a public road is provided...
- 5. The proposal is consistent with local and regional plans...
- 6. Consistency with State Highway Master Plans...
- 7. Coordinated with the area's development...
- 8. Request needs to consider planning and environmental constraints.

1.1.4 Where the Interchange Process Applies

1.1.4.1 Existing Limited Access Facilities

All requests for a new interchange or a modification to an existing and/or approved but not yet constructed interchange on FIHS limited-access facilities must be analyzed, documented, reviewed and processed for an approval decision by the Approval Authority. An Interchange Proposal must be developed and approved even if the proposed interchange is contained in a Master Plan or PD&E study for the facility Exceptions are as follows:

- High Occupancy Vehicle (HOV)/Mainline Slip Ramps and Non-FIHS Limited-Access Facilities do not require the development of an IJR or IMR; however, such access must be analyzed from both an operational and safety perspective.
- FIHS Facilities Under Local Expressway Authority Jurisdiction are handled through the local authority and DIRC. (Except for connections to Interstate Highway Sytems) (See Policy Resource Document 7.)

1.1.4.2 New Limited-Access Facilities

New interchanges that are contained in an approved PD&E corridor study for a new FIHS limited-access facility do not require an Interchange Proposal. However, if the interchange is not built at the time of initial construction, it must be re-evaluated. (See **Section 2.1.1** and **Policy Resource Document 7.**)

1.1.5 Basis For Approval

Normally, justification of the need for the proposed new or modified access is based on traffic demand in the opening year.

Normally, justification of the need for the proposed new or modified access is based on traffic demand in the opening year. However, other criteria may be used in combination with, or in lieu of, this criteria and with concurrence of the Approval Authority. It is the responsibility of the DIRC to come to agreement on the approval criteria, the analysis techniques to be used and the documentation requirements with the Applicant and the Approval Authority prior to the initiation of any analysis and documentation.

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1.1.5.1 Analysis Criteria

Existing FDOT Policy, Rules and Standards, together with the current FHWA policy requirements, shall form the basic criteria for the analysis and documentation required in the preparation, review and approval of any Interchange Proposal. Additions to, or modifications of, these criteria shall be agreed to by the DIRC, the Applicant and the Approval Authority prior to the initiation or review of any analysis and documentation.

FHWA policy requirements must be met.

1.1.5.2 Improvements to Adjacent Interchanges and Arterial Systems New interchanges should only be considered after improvements to adjacent interchanges and the supporting arterial system have been considered, together with TSM strategies, alternative travel modes and grade separation alternatives. If these strategies do not provide adequate transportation solutions to existing and projected future year traffic, a new interchange may be considered. (See Policy Resource Document 1.)

New interchanges should only be considered after improvements to adjacent interchanges and the supporting arterial system have been considered. together with TSM...

1.1.5.3 Safety

The proposal must not cause a safety problem on the mainline, the proposed interchange, adjacent interchanges or the connecting arterial road system. Two key elements should be considered in design of a new or modified interchange to ensure safety these elements include the reduction and elimination of conflicts at entrance, exit and weave sections and the simplification of driver decision making by:

- spreading and clarifying decision points,
- · creating uniformity in design and operations, and
- creating clear and simplified signing.

Table 1.1 Shows selected freeway geometric features and the potential of negative impacts on the safety and operation of the freeway.

Table 1.1 Freeway/Interchange Features with Negative Impacts on Operations/Safety

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Feature	Operational Effect	Safety Impact		
Lack of route continuity	Excessive lane changing Violates driver expectations	Moderate		
No lane continuity (basic lanes)	Increased signing requirements Excessive lane changing	Moderate		
No lane balance (exit entrances)	Capacity reduction Increased lane changing	Moderate		
Inadequate application of auxiliary lanes	Capacity reduction Increased lane changing	Moderate		
Inadequate stopping sight distance	Driver comfort/convenience	Moderate		
"Steep"/long grades	Speed variation – all traffic Capacity reduction Speed differential – trucks/autos	Low		
"Small" radius curve	Speed reduction	Moderate		
Inadequate lane width (less than 12')	Capacity/speed reduction Driver comfort/convenience	Low		
Inadequate shoulder width Right – less than 12' Left – less than 10'	Inadequate breakdown/refuge area -right Capacity reduction – less than 6' right Capacity reduction – less than 2' left Inadequate breakdown/refuge area-left	Moderate		
Left exits and entrances	Increased lane changing Two-sided weaving (across all lanes) Increased signing requirements	High		
Two exits/interchange	Increased signing requirements Potential driver confusion	Moderate		
Exit beyond crossroad	Reduce exit visibility Driver comfort/convenience	Low		
Inadequate exit/entrance design Short taper/parallel Small radius at exit/entrance gore	Inadequate merge/diverge opportunities Inadequate speed for entering vehicles Exiting vehicles slow on mainline- speed differential	Moderate		
Inadequate exit ramp length	Queuing onto main traveled way	High		
Inadequate weaving sections Short weaving sections	Capacity reduction Excessive lane changing Lane changing across all lanes Speed differential between vehicles - all lanes	Moderate		
Inadequate decision sight distance	Driver confusion/indecision Driver comfort/convenience	Moderate		

1.1.5.4 Level of Service Criteria - Interstate Highway System

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The FDOT LOS criteria is shown in **Table 1.2** however, this criteria may not be accetable to FHWA for new or modified interchange to the Interstate Highway System (See **Technical Resource Document 2**). For such facilities, the Proposal must show the new or modified interchange will operate at an acceptable LOS and will not cause a degradation of the mainline or adjacent interchange LOS in the opening, interim or design years. Achieving an acceptable LOS may require mitigation measures such as additional mainline lanes, collector/distribution roads, braided ramps, auxiliary lanes and TSM measures including ramp signalization.

Table 1.2 LOS Criteria From Rule 14-94											
	Rural	Transitioning Urban or Communities	Urbanized less than 500,000	Urbanized more than 500,000	Roadways Parallel to Transit Facilities	Inside Concurrency Mgmt. Area	Constrained or Backlogged				
General Use Lanes	General Use Lanes B C C(D) D(E) D(E)										
Exclusive Through lanes (Includes HOV's)	В	С	D E		E	E	Maintain				
Level of Service standards inside parentheses use lanes only when exclusive lanes. LOS Guidance for Review Purposes											
Collector/ Distributor, Merge/Diverge and Other Checkpoints B C D E E E Maintain											
2002 Quality/Level of Se	ervice I	landbook									

If an acceptable LOS in the project analysis years for an interchange modification is not attainable, alternative approval criteria must be agreed to by the Applicant, DIRC and Approval Authority.

The Applicant must first provide an analysis demonstrating the volume-to-capacity (V/C) ratio for the build alternative for the analysis years. Should an improved V/C ratio be unattainable, the Applicant must then provide additional project justification agreed to by FDOT and FHWA through the use of applicable planning models for the following performance measures:

- Proposed geometric improvement, qualitative description.
- Reduction of congestion duration.
- Reduction of congestion using ITS deployments.
- Reduction of delay, maximum gueue length, etc.
- Reduction of motor vehicle emissions and/or fuel consumption.
- · Reduction of person delay.

1.1.5.5 Level of Service Criteria - Other FIHS Facilities
The FDOT LOS criteria as shown in Table 1.2 shall be used. If the opening, interim or design year LOS analysis shows the facility to fall below the LOS standard, mitigation measures must be used.

Alternative approval criteria must be agreed to by the Applicant, the DIRC and the Approval Authority.

Alternative criteria for Interchange Modifications.

1.1.5.6 Alternative Basis For Approval

In rare circumstances, an Interchange Proposal may be considered where it is not primarily justified based on travel demand. The alternative basis for approval will be developed during the study design process and must have the concurrence of the Approval Authority prior to the initiation of any analysis and documentation. In such cases, the Interchange Proposal must still meet the safety and operational criteria and must also:

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- · clearly define operating conditions,
- · clearly be in the public interest or good,
- have an agreed to funding plan (developer, local government, FDOT),
- have sufficient public involvement and local support to ensure the "need" criteria is met, and
- address any additional criteria required by the DIRC as agreed to in the Study Design Development.

1.1.5.7 Approval Authority

The Approval Authority can be FHWA, the State Transportation Secretary or the District Secretary. The Approval Authority is as follows:

- FHWA all interstate proposals
- State Transportation Secretary all non-interstate limited-access IJRs not in FIHS Plan
- District Secretary all non-interstate limited-access proposals (IJR's and IMR) in FIHS 10 Year Plan (Turnpike proposals must be approved by both the Turnpike Enterprise Director and the appropriate District Secretary.)

Table 1.3 provides the level of review and approval required for Interchange Proposals. (See **Section 2.6**.)

FHWA approves all new or modified access to the Interstate Highway System

			INT	ERSTATI	E 1		FIHS (NON-INTERSTATE)						
	Need Determination		MLOU Approval		Document Transmittal/ Approval		Need Determination		MLOU Approval		Document Transmittal/ Approval		
	IJR	IMR/IOAR	IJR	IMR	IJR	IMR/IOAR	IJR	IMR/IOAR	IJR	IMR	IJR	IMR/IOAR	
District Office / Turnpike Enterprise	X	х	х	Х	Х	X	х	х	х	Х	х	х	
Central Office/SPO	X		Х	Х	X(1)		Х		Х	Х	X(1)		
FHWA	х	х	x	x	X(2)	X(2)							
Applicant			Х	Х					Х	Х			
Notes:	1. For IJR's not contained in FIHS Plan. 2. FHWA interchange approval requires both IJR/IMR and NEPA approval												

<u>1.1.5.8 Access Approval for the Interstate System</u>

The approval of new or modified access on the Interstate Highway System approval requires is considered a Federal Action which requires either an IJR or IMR approval and project National Environmental Policy Act (NEPA) approval. These are two separate actions requiring two separate documents and approval processes. (See Section 2.7 and Policy Resource Document 1 and 6.)

Interstate access **National Environmental** Policy Act (NEPA) approval.

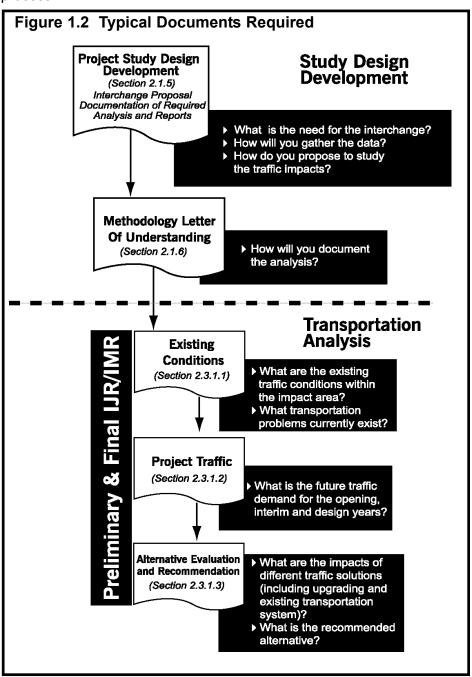
- NOTES -								

1.2 INTERCHANGE PROPOSAL PROCESS SUMMARY

OVERVIEW

The purpose of an Interchange Proposal is to demonstrate the project is needed and is viable based on traffic, engineering, financial and other criteria. **Figure 1.2** summarizes documents required in the Interchange process.

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IJR

OVERVIEW

1.2.1 Types of Proposals

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There are four primary types of Interchange Proposals for limited-access facilities with a brief description as follows:

Providing a new interchange to a limited-access facility... An Interchange Justification Report (IJR) must be prepared if the proposed action is intended to provide a new interchange to a limited-access facility. Such actions require the highest level of analysis and documentation to justify the need for and the operational impacts of the proposal.

IMR Modification to an existing interchange...

An Interchange Modification Report (IMR) is needed if the anticipated action proposes a modification to an existing interchange (in place or approved but not yet constructed).

The extent and complexity of the proposed modification will determine the level of analysis and documentation required.

Multiple closely spaced interrelated interchanges... A Systems Interchange Modification Report (SIMR) may be needed when an Interchange Proposal for a series of closely spaced interchanges that are operationally interrelated are being analyzed. Such an effort may be used to support the development of a corridor PD&E study, either following or concurrent with the SIMR development. The development of a SIMR does not automatically require the use of systems analysis tools such as CORSIM. The analysis tools will be specifically agreed to as part of Study Design Development Process by the Approval Authority and be documented in the MLOU.

Since a problem or issue on only one interchange in the SIMR could delay approval of other interchange projects, the benefits of combining IJR's and IMR's into a SIMR should be thoroughly weighed against the potential for project approval delays.

Interchange traffic operations changes... An Interchange Operational Analysis Report (IOAR) provides documentation of the analysis for the specific aspects of an interchange modification where a full IMR is not required. An IOAR will normally be required where:

- a determination has been made that an IMR was not needed for a particular proposal but documented analysis of some aspect of the operation was required prior to moving into the next production phase.
- additional information is required to assist in making a determination of project feasibility or to examine any "fatal flaws".

An IOAR can be performed prior to, or as the first Task, of a PD&E study (See Section 2.8.)

SIMR

IOAR

1.2.2 Process for an Interchange Proposal to be Considered

FDOT Procedure 525-030-160, Interchange Justification (See Appendix A), defines the specific steps, processes and requirements for an Interchange Proposal to be considered by FDOT. These steps are summarized below and discussed in more detail in subsequent sections.



- Meeting with DIRC
- Early Coordination with SPO/FHWA
- Information Exchange
- Initial Feasibility/Critical **Flaws**
- Study Design Development
- of Understanding (MLOU)

Step 1: <u>Development of a Project Study Design and Methodology Letter</u> of Understanding (See Section 2.1).

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To initiate the process, the Applicant must contact the Chair of the local District Interchange Review Committee (DIRC). The DIRC will serve as the primary point of contact for the Applicant through the entire process.

For developer driven/privately funded projects, the DIRC will work with the District Efficient Transportation Decision Making (ETDM) Process Coordinator to have the project included in the Planning and Programming screens of the ETDM process. Comments received will be sent to the developer by the DIRC and will be addressed in the Study Design development process.

• Methodology Letter Through a series of project study design meetings, the Applicant will provide the DIRC basic information on the proposal and how the engineering and operational analysis will be conducted. The initial meetings will normally focus on the feasibility of the proposal and the identification of any "critical flaws" that may lead to the rejection of the proposal or needed special analysis or mitigation to make the proposal acceptable for consideration.

> To ensure an acceptable approach and to minimize time and unnecessary analysis and documentation, it is essential that the DIRC coordinate the development of the project study design with both SPO and FHWA. If possible, representatives of these offices should attend key study design meetings. (See Section 2.1.2.)

Subsequent meetings will normally focus on the development of an "Interchange Proposal Study Design" which will reflect an agreement between the Applicant, FDOT and the Approval Authority on:

- type of proposal (Interchange Justification Report, Interchange Modification Report, or Interchange Operational Analysis Report),
- the basis for the approval,
- the evaluation criteria to be used,
- the data and analysis to be provided,
- the format of the documentation,
- · the preliminary funding agreement and proposed project schedule, and
- any anticipated exceptions.

Once agreement has been reached on the Interchange Proposal Study Design, the Applicant will develop a formal Methodology Letter of Understanding (MLOU) documenting the study design for formal approval.

Step 2: FDOT and FHWA Review and Approval of the MLOU (See Section 2.2).

The DIRC will coordinate the review of the MLOU within FDOT and with the Approval Authority. When it has been determined that the MLOU is complete, consistent with all agreements made during the study design development process and that all comments from the Approval Authority have been addressed, the MLOU shall be signed by the Applicant, the DIRC, the SPO in Tallahassee and FHWA (for Interstate Proposals only).



- MLOU approval
- Notice to Proceed

The signing of the MLOU normally constitutes a "Notice to Proceed" from FDOT allowing the Applicant to proceed to the development of the Preliminary Interchange Proposal.

The Applicant is cautioned that FDOT is not obligated to review any analysis and documentation prepared prior to the signing of the MLOU. While full compliance with the MLOU requirements is necessary for the consideration of an Interchange Proposal, the Applicant is also cautioned that the signing of the MLOU should not be construed in any way as FDOT or FHWA concurrence or approval of the proposal.

Applicant should not begin analysis until MLOU is signed.

During the development of the Preliminary and Final Proposals, there may be a need for modification of the MLOU. Modifications can be requested by the Applicant, FDOT, or the Approval Authority. Any changes to the MLOU must be mutually agreed to and formally documented.

Step 3: <u>Development of the Preliminary Interchange Proposal</u> (See Section 2.3).

Once the Applicant has received DIRC notification on the approval of the MLOU, the development of the Preliminary Interchange Proposal may be initiated. The Applicant is to develop the Preliminary Interchange Proposal as a "stand alone" document consistent with the requirements of the MLOU. When completed, the Applicant will submit the proposal to • Preliminary the DIRC for review and comment.

If the Preliminary Interchange Proposal contains exceptions to any FDOT or Federal Policies or Standards, the Applicant must develop specific justification for consideration by the DIRC. This justification can be submitted prior to, or concurrent with, the proposal.





- DIRC/ Review
- Exceptions
- Notification to
- Prepare Final Interchange Proposal



The DIRC shall coordinate the review of the Preliminary Interchange Proposal with the SPO and Approval Authority as agreed. The review shall consider consistency with FDOT and Federal Policy in addition to adequately addressing the analysis and documentation requirements contained in the MLOU. The DIRC will also review requests for exceptions to policies and standards. If concurred in by the DIRC and the District Secretary, such requests will be sent to the State Transportation Secretary or FHWA for an approval decision.

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When the DIRC is satisfied that all comments on the Preliminary Interchange Proposal have been properly addressed, any exceptions granted, the recommended alternative is needed and all evaluation criteria have been satisfied, the Applicant will be notified that the preparation of the Final Interchange Proposal for an approval decision may begin. The Applicant is cautioned that DIRC concurrence to initiate the development of a Final Interchange Proposal for an approval decision should not be construed as FDOT or FHWA approval of the proposal.



Once the Applicant has received DIRC notification, the development of an Interchange Proposal for an approval decision may be initiated. The Applicant is to develop this Interchange Proposal as a "stand alone" document responding to all comments from the DIRC and consistent with the requirements of the MLOU. When completed, the Applicant will submit the Interchange Proposal to the DIRC for review and an approval recommendation.



The DIRC will review the Interchange Proposal submittal to ensure all comments have been properly addressed, all exceptions granted, all the requirements of the MLOU satisfied and determine if the recommended new or modified interchange is justified. Once the DIRC is satisfied with the proposal, an approval recommendation for the District Secretary shall be developed.

Where authorized, the District Secretary shall make the approval decision. For all other cases, the District Secretary shall transmit the proposal to the Approval Authority with an approval recommendation.

The Approval Authority may have additional questions or comments that require a response prior to an approval decision. The DIRC will transmit any such comments to the Applicant for response and re-submittal of the final proposal.



Process Step 5Final Interchange Proposal Development



- DIRC/Approval Authority Review of Final Proposal
- Final Comments
- Approval Decision

Step 7: <u>Project Implementation Activities</u> (See Section 2.7). Upon receiving approval of the Final Interchange Proposal, the Applicant is required to initiate any required production activities, consistent with the approved opening year and project schedule, to complete funding obligation agreements and to take any other agreed to actions necessary to implement the approval alternative.

Process Step 7

 Project Implementation

Approved proposals may need re-evaluation if changes or delays occur.

1.2.3 Failure to Meet Schedule and Opening Year Requirements (See Section 2.11).

If the Applicant does not initiate the PD&E phase within two years of the proposal approval, the DIRC may require a project re-evaluation. This re-evaluation can be part of the PD&E effort or may be a separate effort preceding PD&E.

If an Applicant does not have the approved interchange open to traffic within three years of the opening date in the proposal, the DIRC may initiate action to have the approval rescinded.

- NOTES -

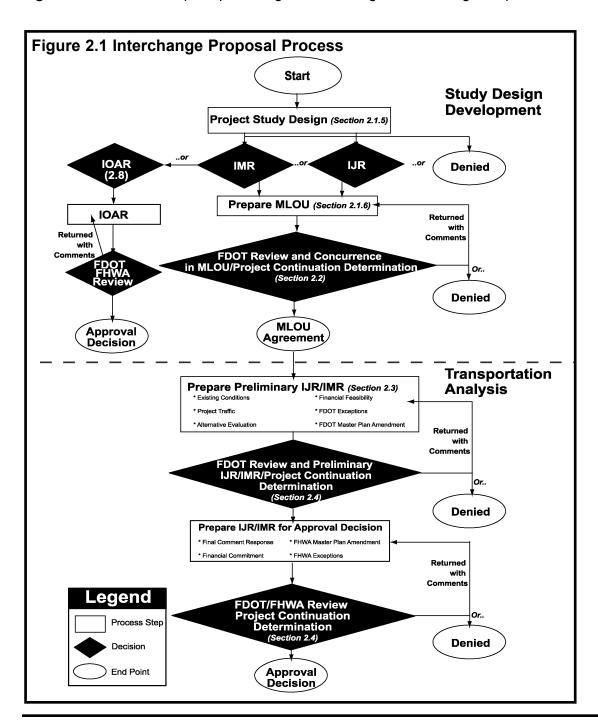
- NOTES -

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SECTION 2 PROCESS DETAIL

The Project Study Design will provide an examination of the need and overall feasibility of the Interchange Proposal. Prior to using the Handbook, the Applicant is encouraged to go to the website: http://www11.myflorida.com/planning/systems/sm/intjus/for the latest addendums and other information.

Figure 2.1 details the steps in producing and reviewing an Interchange Proposal.





2.1 DEVELOPMENT OF A PROJECT STUDY DESIGN AND METHODOLOGY LETTER OF UNDERSTANDING

The Methodology Letter of Understanding will document the Study Design Process agreement between the Applicant, Review Agencies and Approval Authority.

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2.1.1 Determination of need for an Interchange Justification Report (IJR), Interchange Modification Report (IMR) or Interchange Operational Analysis Report (IOAR).

New or Modified Access to the Interstate Highway System

Federal Regulation and Policy require the preparation and FHWA approval of an Interchange Justification Report for all new interchanges to the existing Interstate Highway System. The need for an Interchange Modification Report (IMR) to modify an existing interchange to the Interstate Highway System will be determined by FHWA based on a recommendation from the DIRC.

New or Modified Access to Other FIHS Existing Limited Access Facilities - Florida Statutes and FDOT policy require the strict regulation of access to the FIHS. The requirement for the preparation of an Interchange Justification Report (IJR) shall be determined by the DIRC with the concurrence of the SPO in Tallahassee. The requirement for the preparation of an Interchange Modification Report (IMR) will be determined by the DIRC.

Where an IMR is not required, an Interchange Operational Analysis Report (IOAR) may be required to ensure the proposed modifications will function in a safe and efficient manner, and resolving the existing operational or safety problem. The IOAR may be done as part of the PD&E process or may be

a separate document preceding this process. (See Section 2.8.)

Table 2.1 provides the level of review and approval required for Interchange Proposals.

Table 2.1 Agency Involvement in Interchange Review

			INTE	RSTATE	ĵ.		FIHS (NON-INTERSTATE)					
	Need Determination		MLOU Document Transmittal/ Approval Approval		Need Determination		MLOU Approval		Document Transmittal/ Approval			
	IJR	IMR/IOAR	IJR	IMR	IJR	IMR/IOAR	IJR	IMR/IOAR	IJR	IMR	IJR	IMR/IOAR
District Office / Turnpike Enterprise	х	х	х	х	х	х	х	х	х	х	х	х
Central Office/SPO	х		х	Х	X(1)		х		х	Х	X(1)	
FHWA	X	х	x	x	X(2)	X(2)						
Applicant			x	x					Х	x		
Notes:	For IJR's not contained in FIHS Plan. FHWA interchange approval requires both IJR/IMR and NEPA approval											

2.1.2 Process Streamlining and Coordination

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While the DIRC has the primary responsibility for all coordination with the Applicant, coordination with the SPO and FHWA (where they are the Approval Authority) during all phases of the project will result in a savings of time and in the elimination of unnecessary analysis and documentation. The SPO and FHWA should be brought into the process at the initialization of the Study Design Development process to ensure full agreement of all parties before the initiation of any analysis.



Close coordination should also be maintained during the following:

- the Interchange Proposal/PD&E interface,
- the Interchange Proposal review, comment development and response, and
- the development of the approval recommendation.

The specific role of the SPO in the review and processing of the proposal and coordination with FHWA should be discussed and agreed to prior to the initiation of the development of the Preliminary Interchange Justification Report (PIJR) or Preliminary Interchange Modification Report (PIMR).

2.1.3 Interchange Proposals and the Efficient Transportation Decision Making (ETDM) Process

Projects involving IJR's and IMR's that are the result of the standard MPO/Local Government planning process will be subject to the "Planning Screen" (an environmental and social review of the needs plan) and the "Programming Screen" (an environmental and social review of the projects on the priority list from the MPO). These projects will be like all other DOT projects with regards to the ETDM and NEPA processes.

Those projects that are development driven, and are privately funded, typically do not go through the standard MPO/Local Government planning process. These projects typically are not included in the local area needs plan, nor are they included in the priority list for inclusion in the DOT's work program. The DIRC will work with the District ETDM Coordinator to ensure the inclusion of these projects in the Planning and Programming Screens. This process is required for all projects requiring NEPA or State Environmental Impact Report approval.

The DIRC will provide the ETDM Coordinator with any information regarding the project including location, limits of study area and need for the project. The ETDM Coordinator will load the project information into the ETDM database and notify the Environmental Technical Advisory Team (ETAT) members of the project for review and comment.

The DIRC will act as the Project Manager with regards to the ETDM process. It will be his/her responsibility to ensure that the developer receives any comments from the ETAT members resulting from the screening analysis. These comments will need to be addressed in the Interchange Proposal process during the subsequent NEPA documentation.



2.1.4 Determination of Need for an IMR

The DIRC will determine the extent of the information required of the Applicant to make the preliminary decision/recommendation on the need for an IMR. (See **Policy Resource Document 3.**) Upon concurrence by the Approval Authority on the need for an IMR, the Applicant can proceed with the development of the Project Study Design.

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2.1.5 Project Study Design

The Applicant is responsible for the development of an initial Project Study Design. This study design shall serve as the starting point for the development of the Methodology Letter of Understanding (MLOU). The study design should include the following:

- the basis for approval and evaluation criteria including acceptable LOS criteria, including at a minimum the eight FHWA Policy Requirements (See Policy Resource Document 1),
- relationship with other area transportation and land use plans including MPO plans, facility master plans and the FDOT FIHS Plan (See Section 2.9 and Policy Resource Documents 4, and 5),
- relationship of project to local transportation plans and processes (See Policy Resource Document 4 and 5),
- relationship to the PD&E/NEPA process and to subsequent project production phases (See Policy Resource Document 6),
- proposed access management measures in interchange area, especially within 1/4 mile from the end of the taper of the egress or ingress ramp (See Section 2.9.2 and Technical Resource Document 1),
- a definition of the analysis years tied to Interchange Proposal funding and production (See **Technical Resource Document 3**),
- the area of influence tied to PD&E logical termini as appropriate and including a field review if appropriate (See Technical Resource Document 4).
- relationship to other interchanges and interchange proposals in the study area or area of influence (See Technical Resource Documents 5 and 8).
- transportation network alternatives to be considered (build, no-build, TSM, alternative travel modes) (See Technical Resource Document 5).
- proposed data sources and required additional data collection (traffic, land use, planned and programmed network improvements) (See Technical Resource Document 7),
- travel demand model selection, adjustments and, if necessary, sub-area calibration techniques (See Project Traffic Forecasting Handbook and Technical Resource Documents 8 and 9),

 proposed design traffic development process (technique, factors including data sources) consistent with Project Traffic Forecasting Handbook and documentation if chosen factors are outside of the recommended ranges,



- proposed traffic analysis technique to be used (See Project Traffic Forecasting Handbook, LOS Handbook and Highway Capacity Manual), Click on icon >
- proposed documentation format and requirements sequential or single document (See Section 2.3.3.1),
- proposed preliminary funding commitment plan definition including any FDOT funding commitments (See Section 2.10),
- a project schedule including anticipated documentation delivery dates and anticipated FDOT review times; the proposed project production and construction years; and, the proposed opening year (See Technical Resource Document 3).
- anticipated exceptions to FDOT or FHWA Policies and Standards for the project (See Section 2.3.2),
- known fatal flaw and significant environmental issues (See Sections 2.3.1.1 and 2.3.3.1),
- other data, analysis,information, or qualifying provisions as deemed necessary by the DIRC to make an approval decision.

2.1.6 Methodology Meetings

One or more methodology meetings may be conducted to reach an agreement regarding the study design for the Interchange Proposal. The proposed project study design submitted by the Applicant should be the starting point for the meeting(s).

The meeting(s) should include the DIRC, SPO, FHWA, the Applicant and any of the Applicant's technical or professional consultants. Representatives from other affected or interested local agencies, regional planning councils and other state agencies may also attend if requested by the DIRC. Anticipated exceptions to FDOT or FHWA policies, criteria or standards should be thoroughly discussed to ensure they would not create a fatal flaw to project approval.

2.1.7 Methodology Letter of Understanding (MLOU)

The MLOU's purpose is to document the agreements reached between the Applicant, DIRC, SPO and FHWA in the Study Design Development. The Applicant will prepare and submit the MLOU. After review and signing by FDOT and FHWA, the MLOU becomes the scope of work for the Interchange Proposal and serves as the Applicant's "Notice to Proceed" in this process. This Notice to Proceed does not apply to any contract issued by FDOT.

This MLOU is the final product of all agreements reached so far.



Analysis started before MLOU execution may be at risk.

Required MLOU Provisions.

The MLOU will be signed by the Applicant, DIRC Chair, SPO and FHWA (Interstate Highway System Proposals Only).

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Analysis work may be initiated prior to MLOU acceptance; however, the Applicant is warned that any such work may be done at risk and FDOT will not review and comment on any analysis or reports without specific agreement.

MLOU Qualifying Provisions:

Each MLOU should state the following:

- The Applicant will provide full access to all modeling procedures, data, networks and outputs for project traffic review during the Preliminary IJR/IMR process.
- This MLOU will not be binding upon the FDOT or FHWA to approve the Interchange Proposal under any circumstances, nor will it nullify the FDOT's or FHWA's right to request changes to the study design, require additional data collection, analysis or documentation that may be required at any point during the Interchange Proposal process.
- Full compliance with all MLOU requirements does not obligate FDOT or FHWA to approve the Interchange Proposal.

The following is a suggested MLOU format.

PROCESS DET

INTRODUCTION - This section should identify the Applicant, the engineering consultant, the type of Interchange Proposal (IJR, IMR)

and the interchange location.

PURPOSE AND NEED FOR PROJECT - Identify the Applicant's purpose and objectives, summarize the need for the interchange.

PROJECT SCHEDULE - Identify the anticipated proposal development and review schedule and the schedule of production activities consistent with the proposed funding and opening year.

PROJECT LOCATION - Include aerial photography with an overlay of the the proposed interchange (1-200 scale) and aerial photography (1-500 scale) showing area of influence and a scalable map or map with distances clearly marked showing the proposed interchange location. The subject interchange location should be identified by highway section number, milepost, relationship to adjacent interchanges and system linkages. The map should also include all possible alternative existing routes.

CONSIDERED ALTERNATIVES - If the Applicant has developed specific alternatives to consider in the proposal, a description and a figure to scale should be provided illustrating their location and spacing to adjacent interchanges; to existing and proposed access connections; and to median openings. If alternatives were eliminated from consideration as a result of existing site conditions, a brief justification is required.

ANTICIPATED AREA OF INFLUENCE - Identify the anticipated area of influence. Factors which should be discussed in recommending the anticipated area of influence may include:

- · interchange spacing,
- signal locations.
- anticipated traffic impacts.
- · anticipated land use changes,
- proposed transportation improvements, and
- relationship to PD&E Logical Termini (if applicable).

ANALYSIS YEARS - The proposed opening year, interim year(s) and design year for the project should be identified. If appropriate, these analysis years should be related to the analysis years in the facility Master or Action Plans, MPO Long-Range Transportation Plan, planned and programmed improvements, MPO TIP, the Department's Adopted Five-Year Work Program, development phasing, etc.









EXISTING CONDITIONS - Listing known conditions in the project corridor for:

- Social Impacts
- Cultural Impacts
- Land Use

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- Natural Environment
- Physical Impacts

TRAVEL DEMAND FORECASTING - Identify the travel demand forecasting model to be used in the proposal and the method to be used to interpolate or extrapolate travel demand for the analysis years. The model approved by the District and MPO for use in project level analysis is recommended. If the Applicant recommends the use of an alternative model or method, the justification for the decision should be documented.

MODEL AND NETWORK VALIDATION PROCEDURES - Identify how modifications to the travel demand forecasting model will be made, including modifications to the facility type and area type for links; modifications to socio-economic data and other modeling files; and, the location of centroid connectors.

ADJUSTMENT PROCEDURES - Identify the process used to adjust modeled future year traffic to the defined analysis years.

DATA COLLECTION AND SOURCES - Sources for data should be listed. Data to be collected should include:

- transportation systems data
- land use data
- analysis of existing condition
- existing traffic data
- environmental data
- related plans, programs and projects

DATA COLLECTION METHODOLOGY - Identify any existing data the Applicant intends to utilize in the existing conditions analysis, forecast for travel demand associated with the proposal, future land forecasts, etc. Data collection methodologies should be identified. If the Applicant utilizes current FDOT procedures in data collection, the Applicant need only identify the procedure or policy.

TRAFFIC FACTORS - Identify all design traffic factors to be used and the data source to support the choice. If these factors differ from the recommended ranges identified in the *Project Traffic Forecasting Handbook and Procedure (525-030-120)*, the Applicant must document and justify their use with appropriate historical data. If the specific traffic factors are not agreed to and contained in the MLOU, the Applicant, FDOT and the Approval Authority must agree to and document the factors prior to the initiation of any traffic analysis.

determined by the DIRC at this time.

CONSISTENCY WITH MASTER PLANS, LRTP, LGCP AND DRI APPLICATIONS - The Interchange Proposal's consistency with facility Master Plans, Actions Plans, FIHS Plan, MPO Long Range Transportation Plans, Local Government Comprehensive Plans or development applications, etc., should be identified. Where the proposal is inconsistent with any plan, steps to bring the proposal and the plan into consistency should be developed. The need for a local government adopted access management plan should also be

OPERATIONAL ANALYSIS PROCEDURES - Discuss the proposed operational analysis procedures and software to be used, including the potential need for a systems operational analysis.

ENVIRONMENTAL CONSIDERATIONS - Identify any known potential fatal environmental factors, flaws, and public sentiment considerations.

CONCEPTUAL FUNDING PLAN/CONSTRUCTION SCHEDULE - Identify specific funding sources available to finance the planning, design, construction and maintenance of the proposed improvements. If the project will be funded in part by federal, state or local transportation programs, the project's status in the Department's Work Program, MPO TIP and MPO Long-Range Transportation Plan should be identified.

ANTICIPATED EXCEPTIONS - Any known exceptions to FDOT or FHWA rules, policies, standards and procedures should be identified.

CONSIDERATION OF OTHER INTERCHANGE PROPOSALS - Identify other Interchange Proposals located within the study area and the relationship of this proposal to the others.

QUALIFYING PROVISIONS - Include the qualifying provisions defined in the Project Study Design (**Section 2.1.5**), those defined in this section and any other provisions required by the DIRC, SPO or FHWA.

PUBLIC INVOLVEMENT (Optional at DIRC discretion)- Where public sentiment considerations or other controversial issues exist, the DIRC may hold, or request the Applicant to hold, public information and involvement workshops.

SIGNATURE BLOCK - Provides space for signatures from the Applicant, DIRC, SPO and FHWA.





MLOU approval does not nullify the right of any party to request changes to the methodology or require additional data collection, analysis or documentation that may be needed for an approval decision.



2.2 FDOT AND FHWA REVIEW AND APPROVAL OF THE MLOU

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FDOT will review the MLOU to ensure consistency with the agreements made in the Methodology Meetings and acceptability of the proposed approach. FHWA will be involved in the review and approval of the MLOU for Interstate Highway Interchange Proposals.

For proposals impacting more than one district (i.e., Turnpike proposals and proposals near District boundaries), all affected DIRCs, the SPO, and FHWA must concur in the MLOU.

The DIRC may stop proposal development.

Any final issues raised by FHWA will be discussed and resolved with the Applicant before MLOU approval. If no resolution of the methodology issues can be made within 90 days, the DIRC can terminate the process and have no further obligation to entertain the proposal until all issues are adequately addressed.

2.2.1 Project Continuation Determination:

Based on the information provided, the DIRC, FHWA and SPO shall make an assessment as to whether the project should proceed based on known existing conditions, spacing and access standards, engineering features, operational or safety factors, known environmental concerns, proposed project funding and other pertinent factors. Further proposal developments may be stopped at this time based on one or more of the above criteria.

The criteria used to make this decision is outlined in **Policy Resource Documents 1** and **2**.

The Applicant, DIRC, SPO and FHWA must sign the MLOU.

SPO and FHWA must 2.2.2 MLOU Approval:

After DIRC, SPO and FHWA concurrence with the approach and the need to proceed with the Interchange Proposal as defined in the MLOU, the Applicant, DIRC Coordinator(s), SPO and FHWA will sign the MLOU.

The signed MLOU serves as a Notice to Proceed.

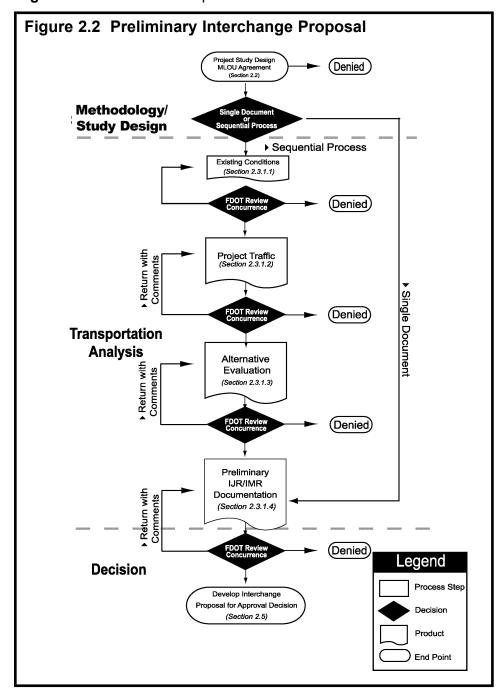
The signed MLOU will serve as the Notice to Proceed for the Applicant unless otherwise stipulated by the DIRC. Any work performed by the Applicant prior to the approval of the MLOU shall be considered "at risk" and may not be accepted by the DIRC.

2.3 DEVELOPMENT OF THE PRELIMINARY INTERCHANGE PROPOSAL

OVERVIEW

Following signing of the Methodology Letter of Understanding (MLOU) by all parties, the Applicant may begin the Preliminary IJR/IMR phase. **Figure 2.2** summarizes this phase.







The purpose of the Preliminary IJR/IMR (PIJR/PIMR) is to serve as a review document for FDOT and FHWA. The need for the interchange must be clearly shown and all analysis and documentation requirements as defined in the MLOU met. The document shall contain an analysis of:

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- existing conditions (See Section 2.3.1.1),
- forecasted future conditions (See Section 2.3.1.2),
- evaluation of alternatives (See Section 2.3.1.3), and
- an alternative recommendation (See Section 2.3.1.3),

The Preliminary IJR/IMR can be prepared as a single document or in three sequential documents which are individually reviewed and approved by the DIRC prior to the development of the next document (See Section 2.3.3.1 for document format sample).

2.3.1 Preliminary IJR/IMR Requirements

The documentation requirements will be determined by the DIRC in cooperation with the Approval Authority during the Project Study Design Development phase.

The sequential process is recommended for all IJR's and Applicants who require a more frequent review of the technical analysis and interaction with FDOT. Each of the technical analysis and supporting documents may be organized similar to the related elements of the ultimate Preliminary Interchange Proposal to reduce any duplication of effort.

The total documentation to be provided must contain the same level of information, regardless of which documentation/review technique is employed (sequential process vs. a single document).

Guidance for when the DIRC may require that a PIJR/PIMR be prepared using the sequential process is as follows:

- a Master Plan does not exist or is out-of-date (See Policy Resource Document 4), or
- the Interchange Proposal is not consistent with the Master Plan (design concept, traffic, etc.), or
- · the Interchange Proposal is not in the FIHS Plan, or
- the Interchange Proposal design year is more than five years different from the Master Plan design year, or
- the proposal is complex, requiring extensive interaction with the DIRC, or
- the Interchange Proposal is development driven.

Sequential Process Guidelines.

For PIMRs, the DIRC must also determine how the IMR and PD&E analysis, public hearings and documentation should be coordinated and integrated (See **Policy Resource Document 6**). The documentation options include:

- a separate IMR preceding the PD&E study, or
- a pullout IMR section from the PD&E report, or
- a single report to be used for the IMR and PD&E approval.

The need to have IMR approval prior to the PD&E public hearing may dictate the documentation option.

The need, extent of documentation and process to be followed for a Master Plan modification will be made at the conclusion of the Preliminary IJR/IMR phase. A detailed discussion on the relationship between the Master Plan and Interchange Proposal Process is included in **Policy Resource Document 4**.

2.3.1.1 Existing Conditions and Conceptual Need

The purpose of this analysis is to provide an existing operational baseline for comparison of build and no-build alternatives and a conceptual analysis as to the need for the Interchange. A more detailed discussion is provided in **Technical Resource Document 7**.

The Applicant will identify any known environmental or cultural impacts that could be a fatal flaw or result in significant mitigation efforts. This shall include: navigable waterways, wetlands, public lands, noise sensitive sites, historical or archaeological sites, impacts to neighborhoods or any other environmental or cultural factors.

Based on the existing conditions evaluation, the Applicant should provide a conceptual analysis of why existing interchanges and the arterial highway system cannot handle the anticipated additional traffic. This needs analysis could also be documented in the alternatives analysis section of the proposal.

Document Preparation. The Applicant will prepare a report to document existing conditions on the mainline, adjacent interchanges and the surrounding local roadway network. A drawing will be provided showing the location of the proposed new interchange or the extent of the interchange modification (preliminary geometric configuration overlaid on the existing interchange and mainline configuration).

2.3.1.2 Future Year Traffic Forecasting and Project Traffic

The specific FDOT procedures and technical criteria for Future Year Traffic Forecasting and Design Traffic are discussed in detail in **Technical Resource Documents 8, 9 and 10 and the Project Traffic Forecasting Handbook**.



Coordination of Interchange Proposal and PD&E process.





Document Preparation. This report will be a compilation of the methodologies, techniques, data, analysis and results. At the DIRC's discretion, the report may be prepared as a series of individually developed and approved technical reports. If used, the suggested reports could include, but not be limited to the following:

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- The Network Model Validation Report will document the validation effort performed on the travel demand forecasting model selected for this project. This report may be as simple as a letter from the District verifying the Applicant is using the District-approved, validated or calibrated model or as documentation of an actual network model validation effort prepared by the Applicant.
- The Project Validation Report will document the review of the model to determine if it is replicating existing traffic by facility within the area of influence and any validation effort performed by the Applicant to adjust the model. The Project Validation Report must clearly demonstrate that the selected travel demand forecasting model is appropriate for use in the Interchange Proposal based on the reasonableness of the predicted travel demand within the area of influence on a link-by-link basis in the base year of the model.
- The Future Travel Demand Report will document the forecasting of future travel demand for the area of influence in the opening, interim and design years. The future travel demand forecast, as measured in automobile and transit services, must meet the technical analysis requirements and criteria for reasonableness identified in Technical Resource Document 9.
- The Project Traffic Report will document the development of project traffic to be used in the alternatives operational analysis. The Applicant must comply with all applicable FDOT policies, procedures and standards in the development of the design traffic, including the Project Traffic Forecasting Handbook.

When all reports are completed and approved, they will be compiled into a single section to be included in the PIJR/PIMR.

Documents Contents. The Applicant will prepare future traffic projections and design hourly volumes for the opening, interim and design years for all agreed upon alternatives. The Applicant will use the travel demand projection models, input data and adjustment procedures as approved in the MLOU. Models, traffic factors and projections will be consistent with the approved Master Plan and PD&E study unless specifically agreed to in the MLOU. Future land use projections and transportation networks used in the analysis will be consistent with any current DRIs affecting the travel demand within the area of influence.



Documentation in the report should include, at a minimum, the following:

- methodology techniques, model refinement and results of the network and project model validation efforts;
- travel demand forecasts within the area of influence for the proposed opening, interim and design years for all alternatives depicted on maps, line drawings and tables, as agreed to by FHWA for Interstate facilities;
- a summary of modifications to land use or socio-economic data files and networks for all analysis years;
- model output smoothing techniques applied, the method used and the extent of adjustments;
- correlation and consistency with data and forecasts for DRIs or other major developments within or affecting the travel demand [AADT and Design Hour Volume (DHV)] within the area of influence; and,
- techniques and factors (K³⁰, D³⁰, T³⁰, T, PHF and other factors as agreed to in the MLOU) used in conversion of model output Peak Season Weekday Average Daily Traffic (PSWADT) to AADT and AADT to DHV for all analysis years.

The Applicant will provide copies of all modeling input data, network files and output used in the development of Project Traffic and any operational analysis.

<u>2.3.1.3 Operational Analysis, Evaluation of Alternatives,</u> and Financial Feasibility

The operational feasibility analysis is a thorough, technical traffic engineering investigation to show the Interchange Proposal's operational characteristics; the impact on mainline and adjacent interchange operations; and, the Interchange Proposal impacts on the surrounding street system, including existing and proposed access connections and medians within the area of influence. The operational analysis takes into account all FDOT general design criteria and standards, as well as a determination of LOS and traffic simulation modeling as appropriate.

This analysis must be consistent with the process and techniques specified in the MLOU, or other techniques acceptable and agreed to by the DIRC and the Approval Authority.

The analysis must clearly demonstrate the need for, and the feasibility of, the recommended alternative, the operational aspects and required mitigation of the proposal and the costs and funding commitments to construct the Interchange Proposal and associated mitigation.







In all operational analysis, the latest approved version of the Highway Capacity Manual shall be used unless otherwise agreed to by the DIRC and the Approval Authority. In the following situations where the HCM techniques may not be applicable, the Applicant, DIRC and Approval Authority will determine the additional microsimulation analysis techniques to be used.

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Highway Capacity Manual is basis for analysis

- Saturated mainline conditions with preliminary LOS E or F as determined in the HCS Freeway Analysis.
- Closely spaced interchanges where up or down stream interchanges can affect the interchange being analyzed.

Guideline for where HCM Techniques may not be adequate.

- Congested merge, diverge or weave conditions as indicated by a preliminary LOS E or F as determined in HCS analysis.
- Queue formation at ramp terminals that may have the potential to impact the mainline operating conditions.
- Complex merge, diverge or weaving sections.

Use of CORSIM requires a calibration step.

When microsumulation analysis techniques such as CORSIM are used, the model must first be calibrated to ensure it realistically represents the real world system. The model can then be used to project future operational conditions. Each future year alternative must be evaluated using the criteria agreed to in the MLOU. Viable alternatives will be selected and documented. When approved by the FDOT, the viable alternatives may be carried into the economic and financial feasibility analysis.



2.3.1.4 Preliminary IJR/IMR Document Preparation

The Applicant will compile all analysis and documentation and add any additional information as required by FDOT to develop the Preliminary IJR/IMR. A suggested standard format and contents are defined in **Section 2.3.3.1**.

2.3.2 Exceptions

Exceptions to FHWA/FDOT policies, rules, criteria and standards must be identified and requested by the Applicant. **Policy Resource Documents 1** and 2 contain details regarding policies, standards, etc. Some common exceptions are:

Exceptions must be justified and approved by FDOT and FHWA

- Interchange Spacing and Connection/Median Standards
- · AASHTO Design Criteria
- FDOT Plans Preparation Manual
- · LOS Criteria

Any request for design standard exceptions must be submitted with sufficient operational analysis information to ensure the proposed alternative requiring the exception will operate at the agreed to LOS.

Process Step 3

Exceptions must be approved using the following process:

- All requests for exceptions identified must be fully documented and justified by the Applicant during the Preliminary IJR/IMR phase.
- The DIRC, after review, may forward the exception recommendation to the District Secretary.
- The District Secretary may deny the exception request or may forward the request to the State Transportation Secretary with an approval/denial recommendation.
- The State Transportation Secretary, either makes an approval/denial decision (for FDOT policy exception) or forwards to FHWA (for FHWA policy exception).
- All exceptions must be approved prior to DIRC authorization for the Applicant to proceed with developing the proposal for final approval. All exceptions must be approved either by the State Transportation Secretary or FHWA regardless of the Approval Authority for the Interchange Proposal. Approval of an exception does not ensure approval of an Interchange Proposal.

2.3.3 Preliminary Interchange Justification/Modification Report Documentation Requirements

At the DIRC's discretion, and as agreed to in the MLOU, all analysis and documentation required for the sequential technical process may be initially provided in a single Preliminary IMR in lieu of the technical report process. All information contained in the technical reports and any additional information required by the DIRC must be contained in the PIMR.

2.3.3.1 Suggested Document Format

All Interchange Proposals are normally prepared using 8½-inch by 11-inch paper with 11-inch by 17-inch paper used as needed for exhibits. Use of different size paper should be specifically approved by the DIRC. All pages shall be numbered. This will facilitate copying and faxing for a more thorough review. The following is a suggested IJR/IMR format. Additionally, a sample IJR or IMR may be obtained from the FDOT.

Cover Page - The Applicant certifies that the document is complete and correct, meeting the MLOU or MLOU addendum requirements.

Executive Summary - The Executive Summary will summarize the eight FHWA requirements, need for the interchange and any additional criteria as agreed to in the MLOU. (Required by FHWA)

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Document
PIJR/PIMR
Format
Guideline



Document PIJR/PIMR Format Guideline

INTRODUCTION

Applicant Information - Applicant identification including name and address.

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Background - This section should identify any supporting information from previous studies or data acquired to introduce the project to FDOT and support the project purpose.

Purpose - The project's purpose and objectives should be identified.

Project Location - Include aerial photography of the project area and area of influence, a map displaying the subject interchange location and a brief description of the preliminary area of influence. Maps should be to scale or be schematic drawings showing distances between interchanges, intersections, and other key features. The subject interchange location should be identified by milepost, relationship to adjacent interchanges and system linkages. Factors used to define the area of influence should be discussed, including interchange spacing, signal locations, anticipated traffic impacts, anticipated land use changes or proposed transportation improvements.

METHODOLOGY - This section should summarize the methodology used to develop the Interchange Proposal. The discussion should provide sufficient detail for the reader to understand the processes used. Where established guidelines were used, the Applicant should simply recognize the guideline and deviancies from standard procedures employed. As an option, the DIRC may require the signed MLOU to be included in an appendix.

EXISTING CONDITIONS - This section should identify the conditions that existed in the project's base year. Sufficient information should be provided to satisfy the requirements identified in **Section 2.3.1.1**. Text, figures and tables should be used as appropriate to describe the existing land use, transportation system, demand, performance and environmental conditions considering the following:

Demographics - This section should identify significant population and employment statistics within the project area of influence. A ZDATA 1, ZDATA2 and ZDATA3 summary for traffic analysis zones for the base year from the selected travel demand forecasting model should be included.

Existing Land Use - Existing land use within the project area should be summarized by general land use classifications (residential, commercial, industrial, institutional, recreational, etc.). Major developments within the study area, including approved DRI's should be identified.

Existing Roadway Network - Facilities within the project area of influence should be identified by functional classification, laneage and access control (e.g., limited - or controlled-access). In addition to a discussion, a figure should be provided illustrating each facility within the study area.

Alternative Travel Modes - Existing single occupant vehicle (SOV) alternatives related to the project should be identified in this section. These modes may include special use/HOV, park and ride, bus transit, fixed-guide way mass transit, airports, ports and forms of non-motorized transportation facilities. A figure should be provided illustrating the location of these modes.

Interchanges - This section should describe the existing configuration, geometry and other design features of existing interchanges in the area of influence, including identifying any elements that do not meet current design standards. This section should also identify any approved but not yet constructed interchanges, defining their geometry and status. Also any other Interchanges being developed in the area of inference should be identified.

EXISTING OPERATIONAL PERFORMANCE

Existing Traffic Data - This section will discuss existing traffic and travel data source(s). If the Interchange Proposal is consistent with an existing Master Plan, the Master Plan and supporting traffic report(s) should be identified.

Level of Service - This section will summarize the existing operating conditions assessment results. Tables and figures should be employed to summarize operational performance.

Existing Accident Data - This section will summarize existing accident data supporting the need for the project.

Existing Environmental Constraints - This section should identify any known potential environmental fatal flaws or areas of concern that will be addressed during this effort or in subsequent project phases. This analysis is not intended to provide extensive examination of environmental and community impact issues that will be accomplished in the NEPA process.







NEED - The Applicant will identify the need for improvement using existing conditions analysis results and the conditions anticipated to occur in the analysis years under the No-Build Alternative. In addition to any operational or system performance deficiencies, other factors such as the need for system linkage will be presented.

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ALTERNATIVES - This section will discuss the alternatives considered, (See **Technical Resource Document 5.**) A brief narrative regarding location and design elements should be provided for each alternative. At a minimum, the following alternatives will be considered:

- No-Build Alternative.
- Transportation System Management Alternative,
- Alternative Travel Modes,
- · Modified Existing Alternative (for IJRs only), and
- All Build Alternatives.

Each of these alternatives should be identified in independent sections. The proposed modifications and engineering factors including structures, landscaping, schedule, cost and traffic control devices should be discussed for each alternative considered.

FUTURE YEAR TRAFFIC - This section shall document the development of the future year design traffic for each alternative. Information to be contained shall include network and project validation, future travel demand projections and the design traffic projections.

ALTERNATIVES ANALYSIS - This section will discuss the analysis of alternatives based on engineering policies and standards, traffic operations, environmental impacts, and the Applicant's objectives. Using the agreed to evaluation criteria in the MLOU, the Applicant is to select a set of viable alternatives. These alternatives may then be evaluated in economic cost and benefits terms and a financial analysis will be performed. This analysis would normally consider, at a minimum, the following:

Conformance with Transportation Plans - This section will discuss the proposal's relationship to facility Master Plans, Action Plans or similar investment studies and the FIHS. This section shall also document consistency between the data analysis and recommendation of this document and the DRI document necessitating the Interchange Proposal.



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Compliance with Policies and Engineering Standards - This section will document each alternatives consistency with FDOT and FHWA (if applicable) policies and engineering standards.

Coordination - This section will discuss each alternatives relationship to approved transportation, land use plans and programs, related DRI's in the area and required Access Management Plans. This section will also summarize any public involvement which occurred during the project.

System Performance - System performance measures will be discussed in this section. These measures include the project's effect on system wide vehicle-miles of travel, vehicle-hours of travel and average travel speed. This section is most appropriate for new interchanges or improved system linkages for new grade separations presented in IJRs. For IMRs, the impacts will likely be localized, but may be discussed if an economic evaluation was performed.

Operational Performance - The levels of service for each mainline individual element within the interchange area of influence and along crossroads to include existing and proposed access connections and median openings should be presented.

Environmental Impacts - A potential environmental impact summary considering all NEPA elements from a fatal flaw perspective for each alternative should be presented. This section should identify the attainment status of the area for the National Ambient Air Quality Standards (NAAQS) established in the Clean Air Act Amendments. If the project is located in a non-attainment or maintenance area for ozone, the relationship of the proposed improvements to the conforming TIP, State Implementation Plan (SIP) and MPO Long-Range Transportation Plan should be discussed.

Safety - Potential safety benefits should be discussed if the proposed improvements will contribute to a reduced number or severity of accidents. This section should also discuss the project's relationship regarding emergency service vehicles and hurricane response capacity if appropriate.

Alternatives Comparison - This section could include an alternative evaluation which includes factors agreed to in the MLOU.

Viable Alternatives - This section will present the viable or recommended alternatives selected from this analysis for financial and economic (optional) evaluation.









FUNDING PLAN - A Funding Plan will be prepared by the Applicant. This plan will identify the specific funding programs or private sources needed to support all of the improvements proposed in this report. Project revenue requirements will be discussed if the project is a toll project. **Section 2.10** presents Funding Plan documentation requirements.

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RECOMMENDATIONS - This section will discuss the preferred alternative selection and any recommendations for further action, such as programming the PD&E or design phases.

APPENDICES - Appendices will be used for traffic operational analysis documentation and other supporting documents. Lane configuration schematic and figures illustrating the existing geometry overlaid with proposed geometry are required, at a minimum. These figures should clearly show dimensions for the acceleration and deceleration lane spacing, lane transition taper lengths, auxiliary lanes and interchange spacing (measured from the centerline of grade-separation structures).

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2.4 REVIEW OF PRELIMINARY INTERCHANGE PROPOSAL

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The DIRC shall coordinate the review of the Preliminary Interchange Report with respect to the FHWA Policy Criteria; the requirements of the MLOU for sufficiency, completeness and correctness; and, for consistency of the data, analysis and recommendations with the development DRI (if required). This review would normally include FHWA for Interstate Highway System Projects and SPO as agreed to in the Study Design Development Phase. In addition, any requests for exceptions to policies, procedures and standards must be reviewed and have approval decisions during this step. The review will focus on the following items:



- Is the need for the new/modified interchange established and is the proposal justified?
- Will the new/modified interchange operate safely and efficiently?
- Will the new/modified interchange cause significant impacts on the mainline, adjacent interchanges, or the connecting arterial?
- Are the interchanges and mainline configurations (laneage, collector distributor system, special use/HOV lanes, auxiliary lanes, etc.) consistent with the Master Plan and the FIHS Plan?
- Has a firm funding plan for the Interchange Proposal been established and agreed to by all parties? If funding plan has not been developed or agreed to by all parties, no further processing of the proposal for an approval decision should occur.
- Is the proposal consistent with local government transportation plans, DRIs, etc.?
- Are other network improvements shown in the financial plan to support the proposal funded and in government work programs and plans?
- Have any exceptions to standards and policies been justified, documented and concurred in by the Approval Authority?
- Are there any potential major (fatal flaw) environmental impacts?
- Is the new/modified interchange consistent with FDOT policies, priorities and plans?
- Have additional areas of concern/issues based on the agreements established in the MLOU been addressed?

Based on the review of the Preliminary IJR/IMR and the approval of any exception requests, the DIRC shall make one of the following recommendations:

- the process be stopped because the need is not justified or because of significant engineering, environmental, operational or safety problems that cannot be satisfactorily mitigated;

 Continuation
 Recommenda
- the process be stopped because an acceptable and agreed to funding plan has not been developed;

Guidelines for DIRC review of PIJR / PIMR

DIRC Process Continuation Recommendations



- a revised draft document responding to all FDOT comments be submitted for further review; or
- a final document be prepared for submittal to the Approval Authority that responds to all FDOT comments.

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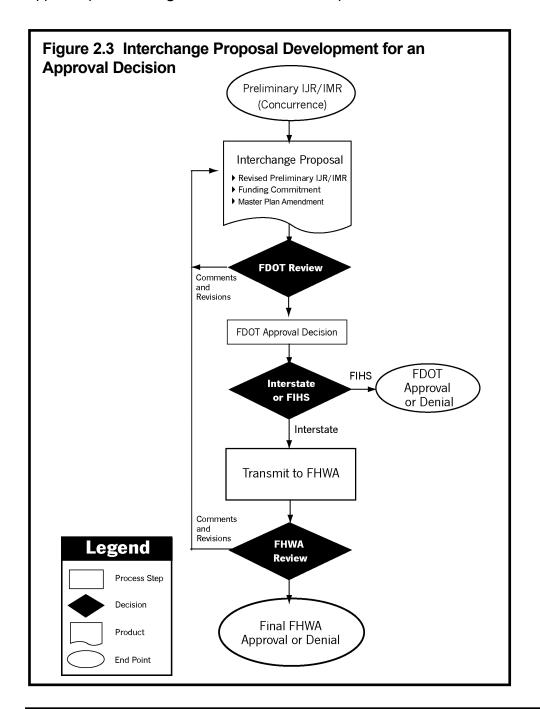
- NOTES -		

2.5 DEVELOPMENT OF THE FINAL INTERCHANGE PROPOSAL FOR AN APPROVAL DECISION

Process Step 5

OVERVIEW

Following the DIRC's concurrence in the Preliminary IJR/IMR phase, the Applicant may make necessary revisions to the document to initiate the approval process. **Figure 2.3** summarizes this phase.





The Final Interchange Proposal will:

 Use the PIJR/PIMR as the basis for the Final Interchange Proposal document incorporating acceptable responses to all comments.

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- Reflect any additional issues, alternatives, impacts and analysis identified during the PIJR/PIMR review.
- Be certified by the Applicant in the transmittal to the DIRC that the interchange proposal meets all FDOT analysis and documentation requirements. (See Section 2.3.3.1.)

The approved Facility Master Plan may need modification.

This phase may also include the preparation of a Master Plan modification and the initiation of a PD&E study to secure project location and environmental approval.

2.5.1 Applicant Develops Master Plan Modifications

A Master Plan Modification Report may be required by the DIRC as a condition of interchange approval. The extent of the analysis and documentation required will be made by the DIRC as part of concurrence in the PIJR/PIMR. This report may include a systems level analysis of the impact of the proposed/modified interchange on the operation of the facility to be drawn from the systems analysis done in the PIJR/PIMR phase. The plan modification showing the proposed new/modified interchange in sufficient detail, the necessary lane justifications/modifications and any auxiliary facilities needed to support it may be required.

A refined Master Plan staging and implementation schedule and funding plan showing costs to be paid by the Applicant, the FDOT and local government, as applicable, may also be required. This plan should be mutually agreed to by all parties prior to the final Master Plan Modification Report being approved by the FDOT for transmittal to FHWA.

PIJR / PIMR is the basis for an Interchange Proposal.

2.5.2 Development of the Interchange Proposal for an Approval The PIJR/PIMR will serve as the basis for the interchange proposal document and will be supplemented to address any additional comments, issues, alternatives, impacts and analysis identified during the PIJR/PIMR phase. If required the Applicant may develop the Interchange Proposal for an approval decision concurrent with, or following the Master Plan Modification Report at the DIRC's discretion.

If no significant negative impacts are identified during the PIJR/PIMR process, the PIJR/PIMR will normally meet the requirements of this document. Where significant negative impacts have been identified, these impacts, proposed mitigation measures and financial commitments must be documented before the approval process can continue.

2.5.3 Funding Plan Agreement

During this phase, the preliminary funding agreement in the PIJR/PIMR should be formalized into a binding agreement between the District (for FDOT) and the Applicant that contains a mutually acceptable financial plan for funding the proposal including cost sharing. The binding agreement must be acceptable to FDOT prior to submitting the Interchange Proposal for approval decision. This agreement should be signed by all parties after access approval of the Interchange Proposal. Failure of the Applicant to sign the binding agreement could result in Department action to rescind the approval of the proposal.



Funding agreements must be finalized.

The Applicant, at the DIRC's discretion, may also be required to produce an acceptable binding commitment that guarantees the Applicant's financial commitment to the proposal (e.g., Letter of Credit, bond, etc.).

2.5.4 Access Management Agreement

When the DIRC determines it is necessary, the Applicant will be required to An Access develop and have all the parties excute an access management agreement. The agreement will be between FDOT, the local government, the Applicant and any other affected entities. Such agreement will be based upon an access management plan for the property located up to a minimum of 1320 feet from the end of the Interchange ramps. The plan will provide reasonable access to the public road system and maintain the longterm safety and operation of the Interchange (any planned access to the State Highway System must conform to the requirements in Rules 14-96 and 14-97, Florida Administrative Code). Failure to develop and have the agreement executed will result in FDOT stopping the proposal review process and/or FDOT denying the proposal. (See Section 2.9.2.)

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Management Plan may be required.



2.6 INTERCHANGE PROPOSAL PROCESSING AND APPROVAL DECISION

If the DIRC concurs that the proposed new/modified interchange is needed, the proposal's impacts are not significant or can be mitigated and the proposal is consistent with FDOT policies, procedures, plans, priorities and standards, the DIRC will forward the document to the District Secretary. The District Secretary will either approve the document (where designated as the Approval Authority) or forward the document to the State Transportation Planner, with a recommendation for approval specifically noting any conditions or exceptions. In reviewing the proposal for approval decision, the DIRC shall consider:

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DIRC Guidelines for final proposal review.

- Is the analysis and documentation complete, accurate, sufficient and consistent with the MLOU and the Interchange Process? If not, has the DIRC concurred in any deviations?
- Is the need for the interchange fully justified and in the best interest of the public?
- Does the proposal meet the eight FHWA Policy Criteria?
 (See Policy Resource Document 1.)
- Does the proposal impact the operation and safety of the mainline, adjacent interchanges or the surrounding street network and, if so, are the impacts properly mitigated?
- Has an Arterial Access Management Plan been developed and agreed to? (where required)
- Are the final funding commitments consistent with the proposed opening, interim and design years, and has the development of a binding funding agreement been completed?
- Are all exceptions to policies and standards approved? Any additional exceptions must be approved before the proposal is approved or is transmitted for an approval decision.
- Is the proposal consistent with local government and MPO land use and transportation plans?
- Is the proposal consistent with the FIHS Plan? (See Policy Resource, Document 5.)

2.6.1 Resolution of Additional Comments

Additional FDOT and FHWA comments on the proposal can occur and will be transmitted to the Applicant by the responsible DIRC. The Applicant will then have the responsibility to make any necessary modifications to the proposal or the Master Plan Modification Report as appropriate.

The DIRC shall review the Applicant response for completeness, correctness and sufficiency and either resubmit the document for an approval decision or return the document to the Applicant for further response.



Should the Applicant be unwilling or unable to resolve any remaining issues, the DIRC may choose to provide an official Letter of Denial for the Interchange Proposal. Review of Applicant revisions by the FDOT and FHWA will follow the previous guidelines as defined in **Section 2.4**.

2.6.2 Processing for Approval Decision

After the DIRC has affirmed the documents are consistent with FDOT policies, procedures, plans and standards, and is in agreement on proposal approval, the Interchange Proposal will be transmitted to the Approval Authority for an approval decision.

When the proposal is for a Florida Turnpike facility, both the Turnpike Secretary and the appropriate District Secretary will need to approve.

Table 2.1 in **Section 2.1.1** provides the level of review and approval required for Interchange Proposals.

2.6.3 FHWA Review, Processing, and Approval

For Interstates only, the FHWA will review the proposal and provide an approval decision as part of the review and approval process. The approval decision will be made at the FHWA level as shown in **Table 2.2** An Interstate Master Plan Justification/Modification Report may be required by the FHWA.

Should FHWA deny approval, the document will be returned to the DIRC and to the Applicant with a written description of comments and issues requiring resolution. It will be the DIRC's responsibility to determine if the Interchange Proposal should be pursued further and, if so, to resolve any FHWA comments and concerns with the Applicant.

- FDOT transmittal to FHWA does not guarantee approval
- FHWA may require additional analysis or further clarification of the analysis and justification provided, and
- in the case of an FHWA rejection, the FDOT may choose not to pursue the request further.

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Table 2.2 Delegation of Authority for Approval of Access Requests on Interstate Highways - Modified for Clarity by the FHWA Florida Division

Proposed Type of Access	Retained by HQ/Federal Highway Administrator	Delegated to Division Administrator
New Interchange at Interstate-to-Interstate or Interstate-to-Interstate-type facility	*	
Major Interchange Modification at Interstate-to-Interstate or Interstate-to-Interstate-type facility	*	
New Interstate Partial Interchange of New Interstate Ramps To/From Continuous Frontage Roads that Create a Partial Interchange	*	
New Interstate-to-Crossroad Interchange within TMA	*	
New Interstate-to-Crossroad Interchange outside TMA		*
Modifications of Existing Interstate-to-Crossroad Interchange (Including TMA's)		*
Completion of Basic Movements at Partial Interstate Interchanges		*
Locked Gate Access to Interstate		*
Abandonment of Interstate Ramps or Interchanges		*

Interstate Type facility - limited access, grade-separated facility not designated as interstate

TMA - Transportation Management Area as defined in 23 USC 134(i). For purposes of this delegation of authority, TMA includes only the urbanized portion as defined by the Bureau of the Census.

Modified July 2001

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2.7 PROJECT IMPLEMENTATION ACTIVITIES

2.7.1 FDOT Actions

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Once the Department or FHWA has approved the Interchange Proposal, the District will schedule any additional agreed to project phases in its work program and will arrange for completing the PD&E phase for further FHWA approval. The PD&E phase is the responsibility of the Applicant. Once the PD&E phase receives final FHWA approval, the Applicant will be required to fulfill the financial commitment agreement. This step may involve such activities as dedication of right-of-way; provisions on design, right-of-way acquisition or construction funding; execution of a performance bond or other evidence of final commitment; or, other agreements approved and documented in the proposal and in the binding agreements. (See Sections 2.5.3 and 2.10.)



2.7.1.1 PD&E Phase Initiation

The PD&E phase may be initiated concurrent with the Interchange Proposal development or following Interchange Proposal approval. If developed concurrently, the PD&E process may normally not proceed with the public hearing and subsequent steps until the proposal is approved. The relationship of PD&E public hearing and Interchange Proposal approval will be determined by the DIRC, SPO and FHWA during the Study Design development process. (See Policy Resource Document 6.)

PD&E and subsequent phases must be initiated to meet approved project opening.

In all cases, the final plans preparation will not normally be initiated until the proposal, the Master Plan modification (if needed) and the PD&E reports are approved unless an exception is granted by the appropriate District Secretary and concurred in by the Assistant Secretary for Transportation Policy and FHWA. In some instances, a proposal reevaluation may be required following the completion of a PD&E study where the recommended alternative is a significant change from the approved concept as contained in the approved IMR or IJR.

2.7.1.2 Programming of Subsequent Project Phases

If PD&E, design, right-of-way and construction phases consistent with the proposed opening year were committed to in the Interchange Proposal but not programmed, they must be programmed, or have commitments to be programmed consistent with, and supporting, the proposed opening and interim years of the proposal. Any additional approved improvements for the design year should be consistent with the Interstate or FIHS Plan and the MPO Long-Range Transportation Plan.

2.7.2 Non-FDOT Applicant Actions

For externally funded projects, the Applicant is responsible for implementing all actions and funding commitments contained in the approved proposal and all binding agreements.

Failure to meet specific agreements or failure to meet the agreed implementation schedule could result in DIRC action requiring a project re-evaluation, or recinding of the project approval. (See **Section 2.11.**)

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2.8 INTERCHANGE OPERATIONAL ANALYSIS REPORTS (IOAR)

IOAR may be required by FDOT or FHWA to analyze specific improvements of an interchange modification where the IMR is not required (See Policy Resource Document 3), or to determine the specific year a proposed improvement to an interchange or facility is needed. The IOAR documentation and level of analysis required is less than an Interchange Proposal.

The DIRC, in cooperation with FHWA for Interstate Proposals, will determine the analysis and documentation requirements for the IOAR. An IOAR would normally contain the following:



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This section should identify any supporting information from previous studies or data acquired that will support the project purpose.

Project Purpose

The purpose and objectives of the project should be identified. This should include an identification of the existing deficiency to be corrected.

Site Location

Include an aerial photograph at an agreed to scale with the new or modified facility shown and a map to scale or schematic showing distances to adjacent interchanges or other critical features.

Methodology

The steps normally performed in the evaluation and the specific analysis will be documented. In general, an IOAR should identify:

- the opening year, interim year(s) and design year,
- · the proposed phasing of improvements,
- the traffic operating condition analysis with the laneage and configurations proposed to be in place during each project phase,
- the year in which improvements are needed based on operational standards if the phasing does not ensure adequate operational performance, and
- the phasing justification based on anticipated geometric and traffic operating conditions

Results

The results of the operational analysis and review are presented. Recommendations for the improvements and phasing should be presented.







Appendices

May be used for the traffic operational analysis documentation and other supporting documents. Lane configuration schematic and figures illustrating the existing geometry overlaid with proposed geometry are required at a minimum. These figures should clearly dimension the spacing of acceleration and deceleration lanes, length of lane transition tapers, auxiliary lanes and interchange spacing (measured from the centerline of grade-separation structures).

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2.9 INTERGOVERNMENTAL COORDINATION

The DIRC shall determine the level of coordination required and the federal, state, regional and local agencies that must be contacted. The DIRC shall also define the role of the Applicant in achieving this coordination ensuring all coordination is properly carried out and all appropriate intergovernmental comments are addressed.

Additional Process

Areas where intergovernmental coordination may be needed include:

- local policies
- · data sources
- · environmental information

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- methodology development
- · proposal review
- infrastructure and Interchange Proposal funding commitments
- consistency with local land use and transportation plans
- project related issues to include access management and land use coordination in the interchange area
- public involvement information



If a proposal is inconsistent with local land use and transportation plans, the proposal should not be brought forward to an approval decision until the inconsistency is resolved and the local government supports the proposal.

2.9.2 Development of a Local Government Access Management Plan

When the DIRC determines it is necessary, the Applicant will be required to develop and have all parties execute an access management agreement. For new Interchanges and major modifications of existing interchanges, the agreement will be between FDOT, the local government, the Applicant and any other affected entities. Such agreement will be based upon an access management plan for the property located up to a minimum of 1320 feet from the end of the Interchange ramps. The plan will provide reasonable access to the public road system and maintain the long-term safety and operation of the Interchange (any planned access to the State Highway System must conform to the requirements in Rules 14-96 and 14-97, Florida Administrative Code). Failure to develop and have the agreement executed will result in FDOT stopping the proposal review process and/or FDOT denying the proposal. (See Section 2.5.4.)

2.9.3 Public Involvement / Public Hearing Requirements

If there is a strong public concern on a proposal, the DIRC may require the Applicant to hold a public involvement workshop. This may be accomplished as part of the PD&E process or may be done prior to entering the PD&E process. A public hearing should not be held as part of the Interchange Proposal process.





2.10 FINANCIAL FEASIBILITY AND FUNDING COMMITMENTS

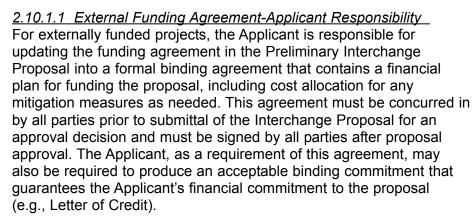
2.10.1 Required Financial Agreements

Financial commitments, through a binding agreement with the FDOT, local agencies and the Applicant, are required on Interchange Proposals. Major requirements for consideration and approval are:

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- development of an acceptable funding plan and a commitment to fund agreed to production and construction of the Interchange Proposal, and
- funding of associated mainline improvement measures consistent with the production and construction schedule in the Interchange Proposal.

The Applicant's commitment should coincide with the adoption of any work program phases funded for the project. In the event there are no FDOT work program commitments, the Applicant's commitment should demonstrate an irrevocable financial commitment through a binding agreement before the proposal is submitted for an approval decision.



The commitment of the Applicant should be consistent with the production schedule required to meet the proposed opening year. If any FDOT work program phases are to be provided for the project, approval must be obtained prior to submittal and appraisal decision. In the event there are no FDOT work program commitments, the Applicant's commitment must be demonstrated by an irrevocable financial commitment as a condition of the approval of the proposal.

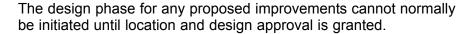
2.10.1.2 Internal Funding Agreement

For internally developed and funded Interchange Proposals (state and federal funding), an estimated schedule based on work program development for the construction and opening of the facility will normally be provided by FDOT.



The schedule will be consistent with the analysis period used in the analysis shown in the proposal, including an estimated time for construction and the opening of the facility. Other critical dates and legal requirements such as inclusion of the project in the MPO Transportation Improvement Plan (TIP), Long-Range Transportation Plan and the Local Government Comprehensive Plan (LGCP) must also be addressed.

PD&E, design, right-of-way and construction phases must be programmed or have commitments consistent with and supporting the proposed opening year shown in the Interchange Proposal document. The PD&E phase may be initiated concurrent with the development of the Interchange Proposal or following approval of the Interchange Proposal. If developed concurrently, the PD&E process may not normally proceed with the public hearing and subsequent steps until the proposal is approved.



The extent of the FDOT's funding commitment for opening year improvements will be contingent on the relationship of opening year to the current FDOT adopted work program as follows.

- Opening Year Proposed within the Current Five-Year Work Program - All production and construction phases must be appropriately staged and programmed within or committed to be added to the Work Program and the adopted MPO TIP or LRTP.
- Construction Just Beyond Current Five-Year Work Program-With the exception of construction, all other production phases supporting construction must be in or committed to be added to the current work program. The construction project should be identified within the FIHS plan and be shown as a top district priority for the project evident within the prioritized list.

2.10.2 Funding Agreement Process

The Applicant's proposed new/modified interchange financial commitment plan will evolve in more detail as the approval of the proposal progresses leading to a binding agreement to be signed by all parties after proposal approval.







The various stages of developing a funding commitment plan are detailed as follows:

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- The Study Design meeting will include a discussion on the Applicant's anticipated schedule for the facility's design and construction, a preliminary cost estimate of the proposal and the Applicant's preliminary funding plan. If the proposal contains construction commitments by the FDOT for the opening year that are not programmed or funded, or if a reasonable funding plan is not provided in the proposal, the process should be discontinued until an agreement is reached and such a plan is developed and concurred in by the District. The funding commitment plan will include the Applicant's proposed participation in the direct Interchange cost and a preliminary fair share cost determination for any improvements anticipated by the Applicant needed to support the Interchange Proposal. If a local government contribution is anticipated, the Applicant must include a preliminary concurrence letter from that local government.
- Refinements to the project cost, and funding commitments are developed as part of the Preliminary IJR/IMR phase. The DIRC may also require additional economic evaluation and financial analysis if required in the MLOU.
- A refined funding plan is required to be included in the Preliminary IJR/IMR. If the funding plan is not acceptable to the DIRC, further processing of the proposal for an approval decision should be stopped until an acceptable funding plan is presented.
- During the development of the Interchange Proposal for an Approval Decision, the funding plan must be formalized into a binding agreement for all parties to sign.
- After the proposal approval, the binding agreement is signed by all parties. Failure of the Applicant or any of the parties to sign the agreement could result in the Department initiating action to rescind the project approval.

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2.11 RE-EVALUATION AND APPROVAL RESCINDING GUIDELINES

2.11.1 Guidelines Where Re-evaluation of the Approved Interchange Proposal May Be Required

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Situations requiring an Interchange Proposal re-evaluation by the Applicant are as follows:

- If the time period between the Interchange Proposal approval and the PD&E phase initiation exceeds two years (as determined by issuance of the advanced notification), the Applicant may be required to perform a re-evaluation.
- If the Interchange Proposals is tied to a specific DRI(s), a substantial deviation to that DRI may also require a re-evaluation. The re-evaluation may be accomplished prior to entering or included in the PD&E phase. For development-driven projects, when a Notice of Proposed Change (NOPC) is evaluated, the determination of a substantial deviation for transportation impacts should consider any proposed change in development traffic which will affect the Interchange Proposal.
- If the development traffic changes within the Interchange impact area, affecting the safety, LOS or the justification of the improvement, an Interchange Proposal re-evaluation may be required by the DIRC. In all cases, the Interchange Proposal should be consistent with the DRI Development Order or other agreements.
- If the design concept for the mainline or Interchange has changed from the approved IJR/IMR.

2.11.2 Re-evaluation Process

The Applicant will prepare a Re-evaluation Report to document any changes in:

- the new/modified interchange proposed design;
- the land use character, density, or projected traffic development; or,
- the roadway system within the area of influence, including the construction of committed improvements or any other changes in assumptions or conditions from the approved Interchange Proposal.

Such re-evaluation may require additional system level analysis as determined by the DIRC. The re-evaluation may be accomplished prior to entering or included in the PD&E phase or next production phase.



Re-evaluation requirements

Re-evaluation Report requirements



The DIRC shall be responsible for the re-evaluation of approved IJRs/IMRs during the project re-evaluation process prior to entering other subsequent project phases.

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Should this re-evaluation indicate significant changes in the approved access concept, a complete IMR may be required.

The DIRC, in cooperation with the Approval Authority, shall review changes that have occurred subsequent to the IJR/IMR approval to determine the need for and the scope of the necessary re-evaluation.

2.11.3 Development Driven Projects

For development-driven projects, when a Notice of Proposed Change (NOPC) is evaluated, the determination of a substantial deviation for transportation impacts should consider any proposed change in development traffic which will affect the Interchange Proposal.

If the development traffic changes within the interchange impact area, the safety, LOS or the justification of the improvement, an Interchange Proposal re-evaluation may be required by the DIRC. In all cases, the Interchange Proposal should be consistent with the DRI Development Order or other agreements.

The DIRC, in cooperation with the Approval Authority, shall determine the need for the re-evaluation, the analysis and documentation required and the relationship of the re-evaluation to subsequent production activities.

2.11.4 FDOT Review and Concurrence

The DIRC and the Approval Authority will review the Re-evaluation Report and determine if the changes are significant. Where there are no changes or where changes are deemed to be insignificant, the FDOT will authorize the next project development phase to begin.

Where the changes are determined to be significant, the DIRC will notify the Applicant if an approved Interchange Proposal update is necessary before proceeding to the next project development phase. The update could range from providing additional data to the approved Interchange Proposal where the basic interchange design concept has not changed to the development of an IMR where changes in the approved concept and access points have been made.

This notification will document the specific items to be updated. The update process will follow the Interchange Proposal approval process as appropriate.

2.11.5 Other Interchange Proposal Modification Requirements The approved Interchange Proposal may have to be modified and submitted for re-approval in the following cases:

- The Interchange configuration or traffic characteristics in an approved PD&E study vary substantially from the approved proposal.
- The interchange configuration is modified in the final design phase (PD&E re-evaluation required through normal NEPA re-evaluation process).



In such cases, the DIRC should work directly with FHWA to determine the need for, and extent of, an Interchange Proposal modification.

2.11.6 Guidelines for Rescinding Interchange Proposal Approval

The DIRC may elect to initiate action to rescind an approved Interchange Proposal under the following circumstances after notification of the Applicant and discussions with FHWA where they are the Approval Authority.

- If an Applicant does not have the approved Interchange open to traffic within three years of the opening date in the proposal.
- If the proposal re-evaluation shows that the approved new or modified Interchange is no longer needed.
- If the Applicant or any of the signatory parties to the binding funding agreement withdraw from the agreement, and a new funding agreement cannot be reached to allow the approved interchange to be open to traffic within three years of the opening date in the proposal.

- NOTES -		



2.12 APPROVAL OF A NEW OVERPASS

The granting of air rights for the construction of an overpass over a federally funded FIHS facility is considered by FHWA to be a federal action requiring the meeting of appropriate NEPA requirements and the approval of an Airspace Agreement (FDOT Form 575-060-32) irregardless of the funding source for the overpass. The extent of NEPA documentation required, and the Approval Authority will vary depending on the specific project.

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2.12.1 Approval Authority

The Airspace Agreement for a new overpass of the Interstate Highway System requires FHWA approval. Requests for FHWA approval are submitted through the State Right of Way Administrator, Property Management. Airspace Agreement for other FIHS facilities can be approved by FDOT.

2.12.2 NEPA Documentation Requirements

The extent of NEPA documentation required for a new overpass will depend on the funding source and the jurisdiction constructing the overpass. The following are general guidelines for such documentation, however FDOT and FHWA should agree on the extent of documentation required on an individual case basis.

- For an overpass being constructed with federal funds, the normal NEPA/PD&E process will be followed.
- For an overpass being constructed with non-federal funds by a local government or expressway authority, NEPA approval can normally be accomplished through Programmatic Categorical Exclusion Number 32, Approval for the Disposal of Excess Right of Way or for Joint or Limited Use of Right of Way where the Proposal does not have Significant Adverse Effects (PD&E Manual). The specific conditions that must be met for the project to qualify as a Programmatic Exclusion are defined in the PD&E Manual. The limits are from limited access line to limited access line. The design (vertical and horizontal clearance pier placement, etc.) must be consistent with the master plans of the facility.
- For an overpass being constructed by a private developer, the specific need for the overpass must be demonstrated, the overpass must be contained in the MPO Long Range Transportation Plan or in the Local Government Comprehensive Plan and the design (vertical and horizontal clearance, pier placement, etc.) must be consistent with the master plan of the facility.

If the overpass is not in local transportation plans, the developer must work with the appropriate governmental entity(s) and have the facility added to the plan before FDOT should consider processing an Air Space Agreement.

The extent of NEPA documentation will vary and should be determined by FDOT and FHWA on an individual case basis.

by FDOT and FHWA on an individual case basis. Pro 2.12.3 DIRC Role the Review of Overpass/Air Space Requests

The role and responsibility of the DIRC in the review of new overpass requests, and in the granting of Air Space Agreements may vary between Districts. Each DIRC should determine if the DIRC should be involved in the process, and if so, what their specific role and responsibility in review of new overpass requests should be.

Responsibilities could include, but not be limited to:

- · Concurrency with need for overpass.
- · Review of design for consistency with FIHS facility Master Plan.
- Review of location for conflicts with existing or proposed interchanges.
- Consistency with local transportation plans.

- NOTES -		



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APPENDIX A

Effective: October 18, 2001 Office: Systems Planning Topic No. 525-030-160-g

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Thomas F. Barry, Jr. P.E. Secretary

INTERCHANGE JUSTIFICATION

PURPOSE: This procedure sets forth the State and Federal requirements and process to be used by all applicants in the development of an interchange proposal (Interchange Justification Report or Interchange Modification Report) which requests a new or modified interchange to any existing limited access facility on the Florida Intrastate Highway System (FIHS). Full compliance with the requirements and process in this procedure is necessary for Department consideration of any interchange proposal. However, compliance does not ensure approval of the proposal. Each proposal approval decision will be based on need, on current Department and Federal Highway Administration (FHWA) policies and on evaluation criteria including engineering, operational, safety, environmental and financial.

AUTHORITY: Section 335.181, 338.001, Florida Statutes

REFERENCES: Department Policy Statement 000-525-015, Approval of New or Modified Access to Limited Access Facilities.

Interchange Handbook, and the Policy and Technical Resource Documents issued by the Systems Planning Office and available on the Internet (www.fladot.com/planning) and Infonet.

SCOPE:

This procedure applies to all individuals involved in the preparation, review or approval of an interchange proposal for all new or modified access to existing limited access facilities of the FIHS.

1. NEED FOR AN INTERCHANGE JUSTIFICATION REPORT (IJR) OR INTERCHANGE MODIFICATION REPORT (IMR)

1.1 New or Modified Access to the Interstate Highway System

FHWA approval of an Interchange Justification Report (IJR) for all new interchanges to the existing Interstate Highway System is required. The IJR must be consistent with and adequately address FHWA policies and regulations.

Analysis and documentation requirements for modifications to existing Interstate Highway System interchanges may range from the development of a simple operational analysis of specific movements documented in an Interchange Operational Analysis Report (IOAR) to the development of a full Interchange Modification Report (IMR). The analysis will document that the proposed modifications will function in a safe and efficient manner, resolve the operational or safety problems and not adversely affect the mainline or adjacent interchanges. Guidelines for modifications normally requiring an IMR are contained in the Department's Interchange Handbook. The District Interchange Review Committee (DIRC) shall develop a preliminary recommendation on the level of analysis and documentation needed for FHWA approval based upon these guidelines, on the extent of the modifications proposed and on any potential impacts to the mainline and adjacent interchanges. Upon concurrence by FHWA, the applicant may proceed with the process.

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1.2 New or Modified Access to Other (Non-Interstate) Existing Limited Access Facilities of the FIHS

Florida Statutes and Department policy require the strict regulation of access to the FIHS. The need for the preparation of an IJR shall be determined by the DIRC with the concurrence of the Systems Planning Office (SPO) in Tallahassee. The requirement for the preparation of an IMR will be determined by the DIRC. The determination on the need for the preparation of an IJR or IMR will be made considering the following criteria:

- (A) need previously defined by the FIHS planning process, master plan, and/or traffic or safety report
- **(B)** FHWA interchange modification criteria (contained in the Interchange Handbook)
- (C) complexity of proposal and potential impact on adjacent interchanges (spacing, operational overlap, change in traffic patterns)
- **(D)** potential impact on the operation and safety of the mainline (change in level of service, merge, diverge and weaving impacts, need for auxiliary lanes)
- (E) facility jurisdiction (turnpike, FDOT, local expressway authority)
- (F) consistency with local government transportation and land use plans
- **(G)** known policy, public or environmental issues that could affect approval of the Interchange Proposal

1.3 Overpass, Rest Area and Weigh Station Process

Overpass, rest area and weigh station approval is specifically not included as a part of this procedure. However, since these facilities may have a potential impact on the operation of the limited access mainline and on adjacent interchanges, the DIRC may choose to be involved in the planning, design and approval process for such facilities:

- (A) Overpass: primary issues for consideration by the DIRC may include the vertical clearance, accommodations of the ultimate mainline typical section and the probability the overpass may become a full interchange in the future.
- **(B)** Rest Area and Weigh Station: primary issues for consideration by the DIRC include merge, diverge and weave movements, ramp queuing capacity and the impact on the operation of adjacent interchanges.

2. APPROVAL AUTHORITY

The Approval Authority will be FHWA, the Department Transportation Secretary or the District Secretary as follows:

- (A) all interstate IJRs, IMRs and IOAR's FHWA
- (B) all non-interstate IMRs and IOAR's District Secretary or designee
- (C) all non-interstate IJRs in the Department's FIHS 10 Year Cost Feasible Plan -District Secretary or designee
- (D) all non-interstate IJRs not in the Department's FIHS 10 Year Cost Feasible Plan Department Transportation Secretary or designee

The approval of all new or modified access on the Interstate Highway System by FHWA is considered a Federal Action. As such, this requires the approval of both the IJR or IMR document and project National Environmental Policy Act (NEPA) approval obtained through the Department's Project Development and Environment (PD&E) process study. These are two separate federally required actions requiring two separate documents and FHWA approval processes.

3. BASIS FOR APPROVAL, APPROVAL CRITERIA AND EXCEPTIONS

3.1 Approval Criteria

Existing Department policy, rules and standards and the current FHWA policy requirements and criteria shall be the primary basis for the analysis and documentation required in the preparation, review and approval of any interchange proposal. Additional approval criteria may be requested by the applicant or required by the District Interchange Review Committee (DIRC) or the Approval Authority. Such additional criteria shall be agreed to by the applicant, the DIRC and the Approval Authority prior to the initiation or review of any analysis and documentation.

3.2 Processing and Approval of Requests for Exceptions

Any exceptions to Department policies, rules or standards must be justified by the applicant, concurred in by the DIRC and the District Secretary and approved by the

Department Transportation Secretary or designee prior to the finalization and transmittal of the interchange proposal for an approval decision. Exceptions to Federal policies and standards must be requested by the applicant, concurred in by the DIRC and the District Secretary, and requested through the Department of Transportation Secretary to FHWA. The exception must be approved by FHWA prior to submittal of the preliminary final interchange proposal.

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4. PROPOSAL DEVELOPMENT REVIEW AND APPROVAL RESPONSIBILITIES

An MLOU is a Methodology Letter of Understanding that documents the agreed upon study design and analysis for a proposed interchange. A summary of the role and responsibilities of the parties involved in the determination of the need for an Interchange Proposal, the approval of the Methodology Letter of Understanding (MLOU) and the approval of the proposal is shown in Figure 1. Specific details are as follows:

	INTERSTATE				FIHS (Non-INTERSTATE)							
	Need Determination		MLOU Approval		Document Transmittal & Approval		Need Determination		MLOU Approval		Document Transmittal & Approval	
	IJR	IMR/IOAR	IJR	IMR	IJR	IMR/IOAR	IJR	IMR/IOAR	IJR	IMR	IJR	IMR/IOAR
District Office	X	X	X	x	X	х	X	х	X	x	X	x
Central Office	X		X	x	X¹		X		X	X	X¹	
FHWA	x	x	X ²	X ²	X ³	X ³						
Applicant			X	х					х	Х		

Notes: X¹ For IJR's not contained in FIHS 10-Year Cost Feasible Plan.

X² FHWA will not sign MLOU's, but will provide comment and concurrance.

X³ FHWA interchange approval requires both IJR/IMR and NEPA approval.

FIGURE 1: Interchange Proposal Roles and Responsibilities

4.1 Establishment of a District Interchange Review Committee

Each district shall establish a District Interchange Review Committee (DIRC) to include appropriate planning, production and operations staff. Each District shall determine the specific composition of the committee, who will chair the committee and the process the committee will use to perform required functions.

4.2 District Interchange Review Committee Responsibilities

The DIRC shall be the primary point of contact for all applicants requesting new or modified interchanges on existing FIHS facilities within their Districts. The committee shall also serve in a review and processing role for all in-house interchange proposals. For all interchange proposals, the DIRC shall agree to the basis for approval, the evaluation criteria and the scope of the technical analysis and documentation. The DIRC shall also provide a technical review of the engineering, operational, environmental and safety impacts of the proposal and make an approval recommendation.

4.3 Applicant Responsibilities

The applicant may be a private developer, a local government, a transportation authority or an office within the Department. In all cases, the applicant has the responsibility for collecting any data required, for documenting the need and for developing the engineering and operational analysis required by the Approval Authority to make an approval decision on the proposal. Specifically the applicant must:

- (A) reach agreement with the DIRC, the Systems Planning Office (SPO) and FHWA (when they are the Approval Authority) on the study design or scope of work
- **(B)** develop the Methodology Letter of Understanding (MLOU) documenting the agreed upon study design
- (C) develop and submit the preliminary interchange proposal containing the analysis and documentation agreed to in the MLOU to the DIRC
- (D) respond to all comments for corrections, requests for additional information and analysis and document revisions
- **(E)** develop and submit a revised interchange proposal that has responded to all comments to the DIRC for an approval decision

4.4 Department Responsibilities

The Department will coordinate with the applicant, approve the MLOU to allow the initiation of the process, and provide review and comments on all interchange proposal submittals. If the proposed new or modified interchange is needed and meets all operational and safety criteria, the Department will either provide an approval decision or transmit the interchange proposal for an approval decision.

Where the interchange proposal impacts more than one District (Turnpike interchange proposals or proposals near a District boundary), the MLOU shall be signed and all analysis and documentation shall be reviewed by all affected DIRCs. The approval decision shall be jointly made by the affected District Secretaries.

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5. THE INTERCHANGE JUSTIFICATION PROCESS

Where it has been determined that an Interchange Operational Analysis (IOAR) is needed, the applicant shall provide the agreed to analysis and documentation. The DIRC shall coordinate the review of the IOAR and provide comments to the applicant. When the DIRC is satisfied with the analysis and documentation, the IOAR shall be processed for an approval decision. Where it has been determined that an interchange proposal, (either an IJR or an IMR) is required, the following process is to be followed. However, strict adherence to this process does not, however, guarantee approval of a request for a new or modified interchange.

5.1 Step 1: Development of Project Study Design and Methodology Letter of Understanding (MLOU)

The applicant, DIRC, SPO and FHWA (when they are the Approval Authority) shall reach agreement on the study design including the basis for approval, evaluation criteria, data sources, traffic factors, design traffic development, operational analysis, preliminaryfinancial commitments and documentation required to address the FHWA criteria and any additional criteria required by the DIRC. Further guidance on the development of the MLOU is contained in the Department's Interchange Handbook. In addition, the DIRC and SPO will specifically agree to the role and responsibility of the SPO in the review and processing of the document as part of this step. The results on the study design process shall be documented in the MLOU to be developed by the applicant for submittal to the DIRC.

5.2 Step 2: Department Review and Approval of the MLOU

The DIRC and the SPO shall review the MLOU for consistency, completeness and correctness with the agreements reached in the study design development process. When agreement is reached on the contents, the MLOU shall be signed by the applicant, DIRC Chair, and the SPO. This action will constitute Department approval of the MLOU and serve as a "notice to proceed" with the development of the interchange proposal by the applicant. Where FHWA is the Approval Authority (Interstate projects only) all comments should be addressed and resolved prior to the Department signing the MLOU.

Any work initiated by the applicant prior to the signing of the MLOU is done "at risk." The DIRC should not initiate the review of any analysis or documentation produced prior to the signing of the MLOU unless previously agreed to. Full compliance with the analysis and documentation requirements of the approved MLOU by the applicant is required for Department consideration of the proposal. However, applicant compliance with the analysis and documentation requirements does not ensure approval of the proposal by the Department or FHWA.

In addition, approval of the MLOU does not restrict the ability of the applicant, the Department or FHWA to request changes to the methodology or require additional data collection, analysis or documentation that may be needed for an approval decision. Any modifications to the MLOU must be documented in writing and be approved by all the original MLOUsignatories.

5.3 Step 3: Development of Preliminary Interchange Proposal

The preliminary interchange proposal shall be a "stand alone" report based on the analysis and documentation requirements defined in the approved MLOU to include existing conditions, future year design traffic and a comprehensive analysis of all build and no-build alternatives. The proposal shall contain a recommendation on a preferred alternative, including an agreed to funding plan for the proposed opening year.

The applicant is responsible for the collection of all data, performing all required analysis and development of the required documentation consistent with the requirements and agreements in the MLOU. The applicant shall submit the preliminary interchange proposal and any requests for exceptions to the DIRC for review and comment. The applicant may request review of any interim analysis and documentation as agreed to with the DIRC.

5.4 Step 4: Department and Approval Authority Review of Preliminary Interchange Report

The DIRC shall coordinate the review of the preliminary interchange proposal with the SPO and FHWA. This review shall consider consistency with the FDOT and FHWA policy criteria, the requirements of the MLOU for sufficiency, completeness and correctness and for consistency of the data, analysis and recommendations with the Development of Regional Impact (DRI), if required. In addition, any requests for exceptions to policies, procedures and standards must be reviewed and processed for an approval decision by the Department Transportation Secretary or FHWA.

Based upon the review of the preliminary interchange proposal and the approval of any exception requests, the DIRC shall make a determination on the need for the new or modified interchange and the adequacy of the analysis and documentation and make one of the following recommendations:

- (A) the process be stopped if the need is not shown, if engineering, environmental, operational or safety problems cannot be avoided or satisfactorily mitigated or if the exception request cannot be approved
- **(B)** a revised preliminary interchange proposal be submitted that responds to all Department and FHWA comments
- **(C)** a revised interchange proposal responding to all Department and FHWA comments be developed and submitted

5.5 Step 5: Development of Interchange Proposal for Approval Decision

The interchange proposal shall be a "stand alone" report consistent with the analysis and documentation requirements in the approved MLOU and which adequately responds to all Department and FHWA comments. The proposal shall have a final recommended alternative, including an agreed to funding plan for the interchange and all other required transportation improvements for the proposed opening year.

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Upon notification by the DIRC, the applicant shall prepare the interchange report incorporating responses to all Department and FHWA comments. The applicant shall transmit the interchange report to the DIRC requesting an approval decision.

5.6 Step 6: Interchange Proposal Processing and Approval Decision

5.6.1 DIRC Review and Approval Recommendation

The DIRC shall review the analysis and documentation in the interchange report for completeness, correctness, consistency with the requirements of the MLOU and response to Department and FHWA comments. The DIRC shall make a determination on the need for the proposed new or modified interchange and shall develop an approval recommendation for the District Secretary.

5.6.2 Report Processing and Approval Decision

The District Secretary shall make the final approval decision for interchange proposals where authorized or shall make the decision to transmit the document to the Approval Authority with an approval decision recommendation. For interchange proposals transmitted to the Central Office, the Department Transportation Secretary will either make the approval decision or transmit the document to FHWA for an approval decision.

5.6.3 Additional Comments

Should the Approval Authority have further comments or request additional analysis or documentation prior to making an approval decision, the DIRC will coordinate the response request with the applicant. Should the applicant be unwilling or unable to adequately respond to this request, the DIRC should notify the applicant of the denial of the requested access.

5.7 Step 7: Project Implementation Activities

5.7.1 Project Funding and Production Phase Programming

Upon final approval of the interchange proposal, the District shall program any additional agreed to funding and production phases in the Work Program consistent with the proposed opening year. Non-Department applicants will be required to fulfill any funding and production activities as agreed to and documented in the approved interchange proposal.

5.7.2 Project Reevaluation and Approval Withdrawal

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If a Non-Department applicant does not initiate the PD&E phase within two years of the approval of the IJR/IMR, or if there is a substantial deviation for any DRI associated with the approved interchange, the DIRC must review the status of the project and may require a project reevaluation prior to the initiation of any production phases. This reevaluation may be done prior to or concurrent with the initiation of the PD&E phase. The specific information to be provided in the reevaluation will be agreed to between the applicant and the DIRC.

The Department may withdraw approval of new or modified interchanges for noninterstate FIHS limited access facilities that are not open to traffic within three years of the opening year in the approved Interchange Proposal. The DIRC may initiate this process through a review of the project status at any time after the opening year contained in the approved IJR/IMR. The review will consider progress toward the construction and any changes to the need for the interchange.

The DIRC may also initiate action for the withdrawal of the approval of new or modified Interstate access not open to traffic within three years of the proposed opening year. If a decision is made to pursue approval withdrawal, the DIRC will coordinate with FHWA on the required documentation and process to be followed.

6. Interchange Proposal Training

Training on the administrative and technical review process is available on request to the SPO. Detailed technical training on capacity analysis tools is also available in cooperation with FHWA on an as requested basis.

7. Forms

No forms are required as part of this procedure.

Additional Interchanges to the Interstate System

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

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Additional Interchanges to the Interstate System

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of policy statement.

SUMMARY: This document issues a revision of the FHWA policy statement regarding requests for added access to the existing Interstate system. The policy includes guidance for the justification and documentation needed for requests to add access (interchanges and ramps) to the existing Interstate System. The policy statement was originally issued in the Federal Register on October 22, 1990 (55 FR 42670).

DATES: The effective date of this policy is February 11, 1998.

FOR FURTHER INFORMATION CONTACT: Mr. Seppo I. Sillan, Federal-Aid and Design Division, Office of Engineering, (202) 366-0312, or Mr. Wilbert Baccus, Office of Chief Counsel, (202) 366-0780, Federal Highway Administration, 400 Seventh Street SW., Washington DC 20590. Office hours are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Background

Section 111 of title 23, U.S.C., provides that all agreements between the Secretary and the State highway department for the construction of projects on the Interstate System shall contain a clause providing that the State will not add any points of access to, or exit from, the project in addition to those approved by the Secretary in the plans for such project, without the prior approval of the Secretary. The Secretary has delegated the authority to administer 23 U.S.C. 111 to the Federal Highway Administrator pursuant to 49 CFR 1.48(b)(10). A formal policy statement

including guidance for justifying and documenting the need for additional access to the existing sections of the Interstate System was published in the Federal Register on October 22, 1990 (55 FR 42670).

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The FHWA has adopted the AASHTO publication "A Policy on Design Standards--Interstate System" as its standard for projects on the Interstate System. This publication provides that access to the Interstate System shall be fully controlled by constructing grade separations at selected public crossroads and all railroad crossings. Where interchanges with selected public crossroads are constructed, access control must extend the full length of ramps and terminals on the crossroad.

Summary of Changes

The changes in the policy statement are being made to reflect the planning requirements of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA, Pub. L. 102-240) as implemented in 23 CFR part 450, to clarify coordination between the access request and environmental processes, and to update language at various locations. The following specific revisions are made to the existing policy statement:

- 1. An additional sentence is added to item 5 under "Policy" that ensures requests for new or revised access are consistent with 23 CFR part 450 and 40 CFR parts 51 and 93.
- 2. Text in item 5 pertaining to future interchange additions has been moved to item 6 because it covers a different subject.
- 3. Item 6 is redesignated as item 7.
- 4. A new item 8 is added so that those reviewing the access request have the information necessary to process the request.
- 5. The fifth paragraph under "Application" is revised to clarify coordination with the environmental process.

The revised policy statement also includes various editorial changes to enhance clarity and readability. The revised policy statement is as follows:

Policy

It is in the national interest to maintain the Interstate System to provide the highest level of service in terms of safety and mobility. Adequate control of access is critical to providing such service. Therefore, new or revised access points to the existing Interstate System should meet the following requirements:

- The existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access nor be improved to satisfactorily accommodate the design-year traffic demands while at the same time providing the access intended by the proposal.
- All reasonable alternatives for design options, location and transportation system management type improvements (such as ramp metering, mass transit, and HOV facilities) have been assessed and provided for if currently justified, or provisions are included for accommodating such facilities if a future need is identified.
- 3. The proposed access point does not have a significant adverse impact on the safety and operation of the Interstate facility based on an analysis of current and future traffic. The operational analysis for existing conditions shall, particularly in urbanized areas, include an analysis of sections of Interstate to and including at least the first adjacent existing or proposed interchange on either side. Crossroads and other roads and streets shall be included in the analysis to the extent necessary to assure their ability to collect and distribute traffic to and from the interchange with new or revised access points.
- 4. The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" for special purpose access for transit vehicles, for HOV's, or into park and ride lots may be considered on a case-by-case basis. The proposed access will be designed to meet or exceed current standards for Federal-aid projects on the Interstate System.
- 5. The proposal considers and is consistent with local and regional land use and transportation plans. Prior to final approval, all requests for new or revised access must be consistent with the metropolitan and/or statewide transportation plan, as appropriate, the applicable provisions of 23 CFR part 450 and the transportation conformity requirements of 40 CFR parts 51 and 93.
- 6. In areas where the potential exists for future multiple interchange additions, all requests for new or revised access are supported by a comprehensive Interstate network study with recommendations that address all proposed and desired access within the context of a long-term plan.
- 7. The request for a new or revised access generated by new or expanded development demonstrates appropriate coordination between the development and related or otherwise required transportation system improvements.
- 8. The request for new or revised access contains information relative to the planning requirements and the status of the environmental processing of the proposal.

Application

This policy is applicable to new or revised access points to existing Interstate facilities regardless of the funding of the original construction or regardless of the funding for the new access points. This includes routes incorporated into the Interstate System under the provisions of 23 U.S.C. 139(a) or other legislation.

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Routes approved as a future part of the Interstate system under 23 U.S.C. 139(b) represent a special case because they are not yet a part of the Interstate system and the policy contained herein does not apply. However, since the intention to add the route to the Interstate system has been formalized by agreement, any proposed access points, regardless of funding, must be coordinated with the FHWA Division Office. This policy is not applicable to toll roads incorporated into the Interstate System, except for segments where Federal funds have been expended, or where the toll road section has been added to the Interstate System under the provisions of 23 U.S.C. 139(a).

For the purpose of applying this policy, each entrance or exit point, including "locked gate" access, to the mainline is considered to be an access point. For example, a diamond interchange configuration has four access points.

Generally, revised access is considered to be a change in the interchange configuration even though the number of actual points of access may not change. For example, replacing one of the direct ramps of a diamond interchange with a loop, or changing a cloverleaf interchange into a fully directional interchange would be considered revised access for the purpose of applying this policy.

All requests for new or revised access points on completed Interstate highways must be closely coordinated with the planning and environmental processes. The FHWA approval constitutes a Federal action, and as such, requires that the National Environmental Policy Act (NEPA) procedures are followed. The NEPA procedures will be accomplished as part of the normal project development process and as a condition of the access approval. This means the final approval of access cannot precede the completion of the NEPA process. To offer maximum flexibility, however, any proposed access points can be submitted in accordance with the delegation of authority for a determination of engineering and operational acceptability prior to completion of the NEPA process. In this manner, the State highway agency can determine if a proposal is acceptable for inclusion as an alternative in the environmental process. This policy in no way alters the current NEPA implementing procedures as contained in 23 CFR part 771.

Although the justification and documentation procedures described in this policy can be applied to access requests for non-Interstate freeways or other access controlled highways, they are not required. However, applicable Federal rules and regulations, including NEPA procedures, must be followed.

Implementation

Second Edition: December 2002

The FHWA Division Office will ensure that all requests for new or revised access submitted by the State highway agency for FHWA consideration contain sufficient information to allow the FHWA to independently evaluate the request and ensure that all pertinent factors and alternatives have been appropriately considered. The extent and format of the required justification and documentation should be developed jointly by the State highway agency and the FHWA to accommodate the operations of both agencies, and should also be consistent with the complexity and expected impact of the proposals. For example, information in support of isolated rural interchanges may not need to be as extensive as for a complex or potentially controversial interchange in an urban area. No specific documentation format or content is prescribed by this policy.

Policy Statement Impact

The policy statement, first published in the Federal Register on October 22, 1990 (55 FR 42670), describes the justification and documentation needed for requests to add or revise access to the existing Interstate System. The revisions made by this publication of the policy statement reflect the planning requirements of the ISTEA as implemented in 23 CFR part 450, clarify coordination between the access request and environmental processes, and update language at various locations. The States will have to take these factors into consideration when making future requests for new or revised access points, but the overall effort necessary for developing the request will not be significantly increased.

Authority: 23 U.S.C. 315; 49 CFR 1.48.

Issued: February 4, 1998.

Kenneth R. Wykle,

Administrator, Federal Highway Administration.

[FR Doc. 98-3460 Filed 2-10-98; 8:45 am]

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APPENDIX C

List of Supporting Documents

- POLICY RESOURCE DOCUMENTS -

FEDERAL HIGHWAY ADMINISTRATION REQUIREMENTS AND GUIDELINES (dated June 2002)	PRD 1-1
FDOT RULES, POLICIES AND PROCEDURES (dated June 2002)	
INTERCHANGE MODIFICATIONS REQUIRING AN IMR (dated June 2002)	PRD 3-1
CONSISTENCY WITH MASTER PLANS (dated June 2002)	PRD 4-1
CONSISTENCY WITH THE STATEWIDE FIHS PLAN (dated June 2002)	PRD 5-1
RELATIONSHIP TO THE PD&E PROCESS (dated June 2002)	PRD 6-1
JUSTIFICATION REQUIREMENTS APPLICABILITY	PRD 7-1
- TECHNICAL RESOURCE DOCUMENTS	_
DEPARTMENT ENGINEERING STANDARDS (dated July 2002)	TRD 1-1
OPERATIONAL STANDARDS, MEASURES OF EFFECTIVENESS (dated July 2002)	TRD 2-1
ANALYSIS YEARS (dated July 2002)	TRD 3-1
AREA OF INFLUENCE (dated July 2002)	TRD 4-1
IDENTIFICATION OF ALTERNATIVES (dated July 2002)	TRD 5-1
WARRANTS FOR OVERPASSES, INTERCHANGES, (dated July 2002)	TRD 6-1
DATA COLLECTION (dated July 2002)	TRD 7-1
TRAVEL DEMAND MODEL SELECTION AND VALIDATION (dated July 2002)	TRD 8-1
TRAVEL DEMAND FORECASTING (dated July 2002)	TRD 9-1
DEVELOPMENT OF DESIGN TRAFFIC (dated July 2002)	TRD 10-1

